

December, 1986

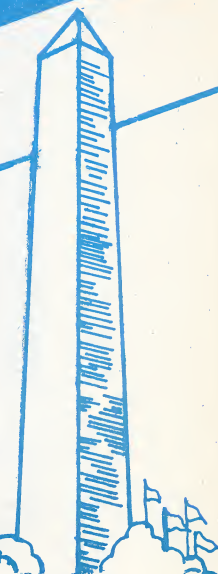
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CURRENT NOTES

The Newsletter For ATARI Owners

WAACE



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Annual WAR GAME Overview
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Gateway
HabaView
Hardball
Home Accountant
PC Board Designer
Rogue
ST Pool 1.3
Star Gilder
Word Writer

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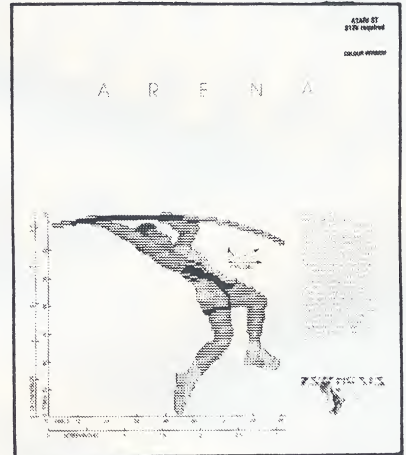
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EDITORIAL

Well, here we are at the end of another full year of *Current Notes*. I think most of you will agree with me that it has been a very successful year. I just reviewed the 10 issues of 1986, and, although it seems like I spend every waking moment working on the newsletter, the fact is many, many people have contributed to these pages. Did you know that *Current Notes* has 16 individuals contributing, more or less regularly, to 14 columns? In addition to our regular columnists, we are blessed with many talented contributors. This past year, approximately 60 individuals combined to give us well over 100 special features (news, articles, reviews, and tutorials). These special features along with our regular columns have given the Atari community over half-a-million words of entertaining and enlightening Atari information. Let me take this opportunity to personally thank all of you who have worked so hard to share your experience and expertise with your fellow Atari owners. I can assure you that *Current Notes* readers share my enthusiasm for the excellent work you all have done.

As we end 1986 and look forward to 1987, I hope all of our authors continue in their efforts, and our joined by many more, because I have taken the advice of many of you and decided to keep *Current Notes* in the larger, expanded format of the past several months. To cover the extra expense of producing such a large news-letter (magazine?), the subscription price is being increased to \$20/year and the cover price to \$3.00/issue. I'd love to tell you that these prices were derived from careful economic study. But they weren't. Given the normal, hectic pace around here from month to month, there simply was no time for that, so I just guessed. My goals for 1987, however, are clear. I want to keep *Current Notes* in its expanded format and increase our circulation so that more Atari owners can enjoy the newsletter. So, if you have a friend that doesn't get our newsletter, be sure to show him yours. If you have an Atari store in your neighborhood that doesn't carry *Current Notes*, encourage the owner to contact me. The larger our circulation grows, the easier it will be to bring you more Atari coverage and still keep our prices within reason.

Joe Waters

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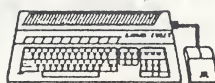
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HOW DO YOU SPELL "ATARIFEST"?

S U C C E S S !

by Jack Holtzhauer

As usual, I was doing my famous "Mad Hatter" routine on the morning of the 2nd annual Northern Virginia ATARIFEST. You probably perform the same bit every now and then. I was running around in circles accomplishing nothing, all the while muttering to myself -- "I'm late! I'm late! For a very important date!"

I had planned to be at Fairfax High School well before the curtain went up so I could casually browse through the exhibit areas and spend a few minutes talking to the vendors before the Huns came over the walls.

It was well after 10:30 a.m. by the time I arrived. The parking lot had been captured. I had to settle for a spot on the street a couple of blocks away.



Crowd fills east half of 5,000 sq. ft. main hallway.

It got worse. Inside the school, the wide central hallway lined with vendors' tables was jammed with Atari fans. Most of them were trying to push money towards harried sales reps who were probably wondering whether they had set their prices too low.

About half-way down the hall a long line of Atarians wound its way towards the registration desk. They were picking up their tickets for the couple of hundred door prizes given away during the day. Besides the door prizes, everyone who registered also received a piece of free software.

It seemed as if half the folks on hand were carrying Magic Sacs. David Small and others selling his Mac emulator obviously had the hottest selling item since

they brought back Classic Coke. Others were walking around laden down with ST's, printers, former top-ten 8-bit software packages they had picked up at two bucks a pop, and other assorted goodies. It looked like a marketplace in Marrakech, 'cept there were no rug merchants nor date palms in sight. Seemed like everyone was trying to be the first one on their block to buy anything.



Jack Holtzhauer, Joe Waters, and Bob Kelly man CURRENT NOTES table while David Small shows off his Magic Sac.

Other vendors? Just twenty or so. Applied Computer Associates, Black Patch Systems, the Buzzword Game Company, Cal Com Inc., Computer Mail Order, Computer Serviceland, CURRENT NOTES, David Beifeld Products (Draw 7, etc.), Digital Arts (Spilt Ink), Diskcovery, Electronic Clinic, Full Spectrum Computers, Games Computers Play, L&Y Electronics, Legacy Audio Video Productions (ST how-to videotape), MASUDASOFT Graphics, Michtron, Micro Marketing International, Microcube Corp (MicroFlyte Joystick), Morgan Communications, Portside PC, Progressive Computer Applications, Shelbourne Software (ST Pool), and Xlent Software.

Seminars, applications and demos? Plenty! Most of the WAACE groups were on hand. NOVATARI sponsored a variety of rooms devoted to special interests -- telecommunications, 8-bit and ST games, ST languages, ST graphics and the ST Music Room, where keyboardist David Hunt, Terry White and CN MIDI columnist Mike Lehr showed off the capabilities of the Casio CZ-101 when mated with the ST.



The GRAPHICS ROOM was one of the most popular features.

AURA specialized in seminars and demonstrations of 8-bit and ST home productivity software -- word processors, spreadsheets and databases.

NCAUG's museum of Atari hardware was a hit. FACE demonstrated voice synthesis, and WACUG's printer room was always busy.

Our friends from the Greater Richmond Atari Support Group (GRASP) were also on hand, and the Fairfax County Office of Adult and Community Education staffed several rooms and displayed a wide variety of educational software. A group from the University of Maryland was hard at work trying to get an Atari Weather Station up and running.



A class listens attentively while an AURA rep explains the fine points of AtariWriter.

Where was the Atari Corp? They couldn't make it. Not even a single rep? Nope. Too close to COMDEX.

First things first. How 'bout a working version of one of their long promised new products for display? Maybe the 80-column board. Sorry. Too close to COMDEX. T-shirts? Handouts? Anything? Sorry. No can do.

The Atari Corp wanted us to change our date. Rent a hotel exhibition area. Hold a two-day weekend show. Charge admission. Under those conditions Atari would be willing to lend support and help defray expenses. Atari knows you can't draw attendance and have a successful show at a local high school. Doesn't everybody know that?

Hmmmm? So, I guess the second annual Northern Virginia Atarifest couldn't have been a success in Atari's eyes. But a draw of 3,000 or so sounds pretty good to me. The crowd came early and stayed late, so they must have had a good time. Were the vendors happy? I finally had a chance to talk to nearly all of them and asked them how they had done. Were sales up to their expectations? Suzie Linton's (L&Y Electronics) response was typical. She just grinned.

NOVATARI and the other WAACE groups are also grinning. They played to a standing-room-only audience even though the star of the show failed to make an appearance.

By the way, yesterday I received a letter from Sig Hartmann, Vice President of Atari Corp. He reported he had recently taken charge of Atari's FORTUNE 500/OEM sales department. "... Your help would be appreciated in opening the doors for us. ... any help you can give me in my efforts is greatly appreciated", he said. Hmmmm. I'd like to help, but I'll probably be too busy getting ready for NOVA's ATARIFEST III. You know the old saying, first things first.



Mike Lehr shows off the Atari's musical abilities in the MUSIC ROOM.

Atari Scuttlebits

by Bob Kelly

Quite a few topics to cover so no dilly-dallying. Let's start by taking a look at some developments affecting the major firms in the home computer market.

I. ATARI STOCK

Public sale of Atari stock began in early November on the American Stock Exchange. The opening price was \$11.50 per share and by November 17th, it closed at \$14.12. While performance has been good, the stock remains a speculative one. Why? The market is still assessing whether Atari is a video game company or a serious producer of computers. Another way of stating the question ... does Atari have staying power as a corporate entity? There is no doubt in my mind as to the answer.

One key as to how Atari stock performs in the near-term will be this year's Christmas sales. Another longer-term guide is how Sig Hartmann performs as the head of Atari's Fortune 500/OEM sales department. In case you weren't aware, Sig has moved from Vice President of software to yet another new position, selling the ST to major corporations and universities. Users will miss Sig as he was a rare breed — he listened to your opinion.

Atari's future appears particularly bright in the area of desktop publishing. Over the next few months, I expect a flurry of software and hardware desktop publishing products for the ST. The 1040ST is capable of supplying plenty of competition to the Macintosh in this area; but as they say, wait till Atari's new machine, demonstrated for only a few at COMDEX, comes on the market.

By the way, the next financial report from Atari will be the fourth quarter report due sometime during February 87. The SEC requires that a 10k form be filed prior to March 31, 1987. Because of the overlap between the registration date of September 18 (in the third quarter) and the issue date of November 7 (in the fourth quarter), Atari need not file a 3rd quarter report. Thus, we will not see any of the third quarter statistics until they are published along with the fourth quarter in February.

II. COMMODORE

Recently, the banks holding more than \$140 million of debt agreed to relax the ground rules under which Commodore was to repay the outstanding balance. This agreement will considerably ease the financial pressure on Commodore.

Rumors have circulated that Jack Tramiel was

interested in purchasing Commodore. Many assumed these rumors were credible since they were published in a few California newspapers. In my view, the rumors are way off base. Why? My reasoning is:

1. Commodore has turned a profit for the past two quarters after five successive quarters of losses.
2. As noted above, the restructuring of outstanding debt.
3. Commodore does have cash on hand; Atari does NOT have substantial amounts of cash on hand.
4. Commodore has recently introduced some new computers — IBM clones. The significance lies not with the technical merit of the clones; but rather, the capability to finance this venture in the face of disappointing Amiga sales.

In sum, for the foreseeable future Commodore will continue to be an independent force in competition with Atari.

III. APPLE IIGS

I'm sure you've seen the flood of articles and reviews relating to the new Apple IIGs. I do not intend to repeat what others have said, if interested, read the articles in *Computer*, *Computer Shopper*, or any Apple magazine.

It is a nifty machine. Apple did have a BETTER IDEA. The IIGs is a 16-bit machine which also runs all of the old 8-bit Apple II software. Needless to say, INITIAL reaction from Apple users was just short of ecstatic.

Lately, however, existing and potential new Apple users have become a wee-bit hacked off. The reason for the chagrin is that the IIGs is not available in any quantity. Local stores have stated they will be lucky to get a few machines prior to Christmas. As a consequence, some Apple dealers are not advertising the IIGs. Apple Corp.'s tactic appeared to some to be similar to the old "bait and switch" routine. To explain, Apple announces the IIGs early although they were aware they will not be able to meet total demand during the peak Christmas buying season. Consumers go to the Apple outlets looking for this new machine, not seeing it, the store attempts to sell them an Apple IIc or IIe or even a Macintosh. According to my source, the consumer isn't buying this approach. They are walking out. Who knows, maybe more people are buying the Atari, Commodore, or IBM clones as a result of this marketing "faux pas" by Apple?

IV. ATARI VERSUS SUPRA HARD DRIVES

Reports from local retail stores indicate the Supra 20 megabyte hard drive is outselling the Atari 20 megabyte hard drive by a ratio of 3 to 1. This is occurring even though the supra's selling price is slightly higher than Atari's.

The reason appears to have more to do with aesthetics than any physical property (reliability/performance). The Supra 3 1/2 Inch drive is considerably smaller than the Atari 5 1/4 inch drive and is extremely quiet. One thing I might add is that Supra is marketing its product aggressively.

V. HOLIDAY SOFTWARE SELECTIONS

There are two software products I would like to recommend for the Atari ST Christmas buyer. The first assists in the management of your investment portfolio while the second is a low-cost desk accessory full of useful utilities.

A. The ISGUR PORTFOLIO SYSTEM (ISP): ISP is a portfolio management program enabling more efficient management of your financial investments. It is not a technical or fundamental analysis program. PC Magazine reviewed ISP for the IBM a few months ago. Its conclusion -- the best all around portfolio management program in its class, suitable for the small investor as well as the professional analyst. I couldn't wait to get my hands on the ST implementation of this product.

Early on, I requested to be the reviewer for CURRENT NOTES (get free copy). Unfortunately, ISP was in the stores before the review copy arrived at CURRENT NOTES. I waited a week more, but still no review copy. Then I got nervous and went out and bought it for \$150 (retail \$199) and have no qualms with having made this decision.

The program's main features include the ability to create a record to track profit and loss from just about any investment you might make including stocks, bonds, options, commodities, and margin accounts. It enables you to automatically update your stock prices via modem, utilizing the major investment services (on and off Compuserve in 55 seconds for six stocks). Prices can be manually entered, if desired. It permits individuals to play "what if..." games with their investment portfolio. ISP features what is called the "raise money" function. This gives the investor, when planning to sell an investment, the capability to determine how to realize the highest capital gain with the minimum Federal tax consequence. Finally, it graphs portfolio values as well as graphically assess the diversification of your holdings.

ISP comes with IS TALK, a telecommunications program (not necessary to download stock prices), and IS BRIDGE which serves as a link between the various programs and the GEM interface.

I found the program superbly done, relatively easy to use and recommend it highly. I wish to commend the principal authors Lee Isgur and Mark Skapinker.

I do have one complaint which does not relate to the program itself but rather Batteries Included (BI) who is marketing and providing technical support for the program. At first, I had trouble automatically downloading stock prices. I called BI 50 or more times, only getting through twice (calling Canada is not cheap on a non-AT&T line). On the two occasions when contact with another human being was established, I explained my problem as well as the equipment I was using. In each instance, BI promised to call me back. I am still waiting.

If this were a \$20 program, it would call for \$20 service. However, I paid \$150 and expect assistance especially since it could impact my finances. The experience with BI reflects a philosophy that bothers me. After many additional hours on my part, I did get ISP to function properly. It boiled down to a simple dip switch setting on my Prometheus modem. The manufacturer recommended setting must be reversed (dip switch #6 must be on). For those of you who have Prometheus modems, my switch settings are all off EXCEPT for 1, 2, and 6 which are ON.

B. CRYSTAL: This is a desk accessory marketed by Antic Software and written by Jim Thompson.

CRYSTAL performs numerous utility functions such as, format disk, print disk directory, make and delete folders, print and delete files, move and copy files. The particular aspect of this program that is most appealing to me is its ability to print files downloaded from BBS's. It is usually quite a headache to print-out .doc or .txt files neatly. In the past I have used various methods to get a decent printout including turning my printer over to throw a dip switch or painstakingly reformatting the document on my word processor. These days are gone. CRYSTAL will print out files with ease. You can also adjust the line length, add headers and footers, and pagination. All of these functions in CRYSTAL occupy just one of the six desk accessory slots. The one drawback to CRYSTAL is a 150 file limit when displaying the disk directory making CRYSTAL's use on the hard disk limited.

I paid \$18. The best utility buy of the year, without doubt.

Next column I will discuss my experiences with the new Magic Sac (Macintosh cartridge) by David Small. Incidentally, if you missed Atarifest in Virginia, as Atari did, you missed a great time. By some counts, more than 4,000 attended.

Merry Christmas and Happy New Year!



COMDEX / FALL ' 8 6*by Joe Kuffner*

Twice per year, there occurs a "once in a lifetime" computer exhibition at which dealers, publishers, manufacturers, designers, programmers and press are gathered together to see what's new, what's old and what's gold in the computer industry. This event is called COMDEX (COMputer Distributors EXhibition). This year's fall show certainly lived up to its reputation of being the largest computer show in America. Exhibitors filled the halls of the Las Vegas Convention Center (all Halls) and spilled over into the convention facilities of another four (4) Vegas hotels. This represents over one million square feet of floor space showing computer hardware, software and peripherals. The exhibition was attended by some 80 to 85 thousand interested viewers. I happened to be one of those attendees.

Before getting into the Atari particulars, let me pass on some of the highlights of the show. Desktop publishing was everywhere. And little wonder, with this sector of the computer industry predicted to generate billions of dollars in revenue in the coming year. Another area of interest was the use of Intel's new 80386 microprocessor in new computers, capable of performing some 4 million instructions per second! Yet another area of interest is the abundance of new IBM clones for under \$1000. Even Korean car manufacturers were into the IBM cloning business! And, probably the best non-Atari news of all was the fact that both Apple Computer and Commodore Business Machines were nowhere to be found!

Lets get onto the really important news from COMDEX. Atari is alive and well! Their booth had to be the busiest and most crowded at the show. As usual, Atari had software developers and suppliers manning the stations within the booth showing off their latest wares. I'll get into the specifics in a moment. Atari had meeting rooms in their booth with on-going meetings between Atari personnel and investors, suppliers and buyers. Word has it that their agenda was so full for the week, that they had to limit each meeting to 15 minutes in length, in order to meet with all those that were scheduled. This has got to be good news for Atari and definitely shows that there is a strong interest in the company from the computer industry.

Atari was showing their new blitter chip inside an operating 1040ST. The demo showed 5 flying parrots (similar to the Bird public domain demo) next to an "unblittered" 1040 running the same demo. Certainly, the blitter chip makes a noticeable difference. Also, they were showing the conversion of MICROSOFT WRITE. Look for its release January '87. In private, I'm told, Atari was showing, to invited guests only, an Atari ST computer. No word yet on what this is, unfortunately. Also, from Atari, who, incidentally, supplied all of the equipment

for their booth, were 20 meg hard drives and the new SC1224 monitors (manufactured by Gold Star). I was told that these new monitors were not the new monitors to be shipped with new ST computers (others with higher specifications will be produced and shipped). These monitors look like the monochrome monitors except that they are color, naturally.

Displaying their utility/programming products at the Atari booth were: Beckemeyer Tools showing their new UNIX OS in an MS Shell environment; Metacomco, a British company, showing various programming languages, including a 68000 ASSEMBLER, BCPL, LATTICE C, PASCAL and CAMBRIDGE LISP; Computer Tools International showing their port of the UNIX IDRIS OS; and, Mark Williams C was also being shown.

Showing productivity tools at the booth were: Time Works demonstrating DATAMANAGER ST, SWIFTCALC, WORDWRITER (looks great!) and two new programs in the Sylvia Porter series, FINANCIAL PLANNER, and SWIFTAX, both coming in early '87; Regent Software were showing off their new REGENT WORD II (Gem based) Word Processor and a new version of Regent Base; SoftLab were there with a port from the IBM called LASEREDIT; Progressive Peripheral, another British company, with an integrated spreadsheet/graphics package that also does project planning and critical path analysis; DAC Software showing the database program, DACEASY; MaxThink with the MAXTHINK Idea processing program; VideoTouch had an ORDER ENTRY SYSTEM which looked very impressive; Abacus Software had PC BOARD DESIGNER up and running, DATATRIEVE, a new database, and POWERPLAN, a new spreadsheet program; Software Punch had version 2.28 of its integrated Word Processing package, BOFFIN, and an accessory word processor, PUNCHPAD. Also look for PUNCHNET, a networking system for the ST also from Software Punch; SBT (Small Business Technology) had a whole line-up of database Accounting modules for Atari's dBMAN, including, GENERAL LEDGER, SALES ORDER PROCESSING, BILLING/INVENTORY, ACCOUNTS RECEIVABLE, ACCOUNTS PAYABLE and PURCHASE ORDERS; ISD Marketing had the long awaited Gem version of VIP PROFESSIONAL which looked great and seemed to solve the slow screen manipulations of earlier versions (the update is available for \$19.95, direct from ISD); and, Royal Software was showing EZ-CALC, an integrated Gem based spreadsheet/graphing program.

A full corner of the Atari booth was dedicated to MIDI music on the ST. Four companies, BeamTeam, Electronic Music Publishers, Hybrid Arts and MidiSoft, were demoing their software and music on the Yamaha DX7, Kawai K3, and a Casio CZ1000. It was music to my ears (and everyone else's at COMDEX). This portion of the booth, which occupied the single most amount of area,

constantly entertained the large audiences with digital sounds that you would only expect from your HIFI.

Displaying entertainment and educational software in the booth were: Unicorn Software and First Byte showing their educational lines of software; Activision showing BASKETBALL, SHANGHAI, and TASS TIMES IN TONETOWN, a graphics/text adventure and, watch in early '87 for CHAMPIONSHIP BASEBALL and FOOTBALL; Eldersoft was showing ST KARATE and a rash of other great games; Scorpio was giving away \$100 in gambling chips while demoing PROFESSOR CRAPS, a craps simulation. Hard to tell whether this is educational or entertaining. Apparently, its both!; Even Electronic Arts got in the act by showing their new releases of CHESSMASTER 2000 and SKYFOX which are to be released by January; and, Shelbourne Software was showing ST-POOL and their new program ST-SHUFFLEBOARD which uses the mouse as if it were the actual Shuffleboard "rock". The most exciting and audience thrilling game shown, however, had to be the after-hours demonstration of a multi-player game called "Killa Happy Face" distributed by the XANTH SST User's Group. This game pitted six players on six separte STs, linked via MIDI cables, against each other, operating a different happy face (using a joystick) through a large maze. The object was to be the first player to score 10 "kills". The game played so well that it was impossible to notice that all the players were on different computers. In fact, if more MIDI cables had been available, up to 15 players could have battled simultaneously. An excellent programming effort.

Graphics oriented software was also on display: MichTron, demonstrating their new Pro Quality digitizer as well as their full line of software products; PCA, showing their newest version of The GRAPHIC ARTIST; ComputerEyes was demonstrating a color digitizing program which created color, Degas format pictures of actual people in 6 seconds!; speaking of DEGAS, Batteries Included and Tom Hudson were showing off DEGAS ELITE (if you don't yet have this one, go buy it, now!); and speaking of Tom Hudson, Antic magazine was showing a range of its software products, including CAD 3D, written by Tom Hudson, and a very interesting 3D demo (wearing glasses); Generic Card had a new program called AUTOCAD; AvilaSoft was showing a new animation program called MAKE IT MOVE; and, DRAFIX 1 from Foresight Resources, an autocad program ported from the IBM, was also on display at the booth.

What about the shows apparent theme of Desktop Publishing? Yes, there were products in this category too: SoftLogik's PUBLISHING PARTNER looked at least as good as any publishing package at COMDEX. It looked like a real winner at \$149.95 and is to be released in December; Migraph was showing EASY DRAW 2.0 demonstrating its application in the desktop publishing field; Virginia's very own XLent Software unveiled its new TYPESETTER ELITE Gem-based publishing program (watch for a thorough demo at an upcoming VaST meeting), and its other printing applications, RUBBER STAMP and MEGAFONT

ST; and, MirrorSoft's FLEET STREET PUBLISHER, yet another desktop publishing program, was being shown.

Still other products on display at the Atari booth were: Data Free Inc., a Canadian software company, publisher of the FASTER DISK MAG was showing their latest issue which included an excellent poker slot simulation; and, JNL Technology was showing their hardware interface to connect the ST to any monitor (i.e not the Atari monitor). The only 8-bit showing, also falls into this category, with ICD showing their 850 replacement, called P.R. Connection and their upgrade board which among other things displays 80 columns on the monitor.

As you can see, there were a lot of reasons for the Atari booth to be crowded. So much enthusiasm towards the ST and the range of excellent products for the computer impressed the heck out of not only Atari distributors and users, but everyone at COMDEX. Atari means BUSINESS. And, still there's more!

Not all of the new Atari computer products were being displayed at the Atari booth. Many companies had their own booths at COMDEX. The following are the highlights: Supra Corporation was showing their line of 20, 30, and 60 megabyte hard drives for the Atari ST and 8-bit computers as well as the Mac and introduced a tape back-up unit for use with their hard drives (list \$799); SubLogic was showing Flight Simulator II for many types of computers, including the ST; Michtron were demonstrating VIVA (Video Disk controller) by playing JOURNEY INTO THE LAIR (Dragon's Lair in the arcades) as well as their new MIDI Sequencer, called SUPER CONDUCTOR, expected to be released in Jan 87; and, Analog Computing Magazine were pushing their new ST-Log magazine at their own booth. ST's also showed up at the booths of other companies. Namely, at Batteries Included, Abacus Software, Buzzword Game Co., Soft-Kat publishers; VersaSoft and at various other software houses around the halls of COMDEX.

As you can see, the Atari ST line of computers is definitely being supported by a wide array of excellent companies producing a fine selection of software. The visibility of Atari at COMDEX seems to have entrenched them as contenders, not only in the home computing industry, but also, in the world of business computing. It would seem that the ST has begun to achieve the popularity it deserves as it certainly is one of the finest computers available.

I hope that I've been able to pass on to you, through this article, all of the excitement around Atari these days. I can only imagine that this is the start of something very big! I can't wait until next year! In the mean time, as you can see by the list of new products, you will be able to get more enjoyment and productivity from your Atari computer. After all, that's why you bought your computer in the first place!

CD Report

by George Langworthy

COMDEX - LAS VEGAS, NV - NOVEMBER 10-14, 1986

OVERVIEW. Each of the three areas of optical storage technology have had a lot going on under the surface with limited announcements popping up. CD-ROM, the first optical storage technology, has the most coming out in hardware and software. WORM (Write Once Read Many) has several first generation 5 1/4" and 12" products which you can plug in and play. Read/Write or erasable optical players and drives are still in the feasibility demonstration stages.

CD-ROM. Hardware includes several 1/2 height slide-in drives and drives with CD audio output built in or on a plug-in card. Hitachi's CDR-2500 (slide-in) and CDR-2500S (free-standing), offer an optional audio card. Japan Victor Company (JVC) is a new entrant. Their XR-R100 (stand alone) and XR-R1001 (embedded) drives are 1/2 height and will operate at up to 5G's and between 5 and 40°C. They appear to be production units. Philips and the new Control Data Corp./Philips joint venture Laser Magnetic Storage International, Colorado Springs, CO showed a cartridge CD holder which they will license royalty free. Using a cartridge will improve the long-term data retrieval access rate by greatly reducing fingerprints, dirt and scratches. With a clean disk the system will not need to retry as often to pick up data. Laser Magnetic Storage's new drives are 1/2 height and the CM 110 (freestanding) has an SCSI interface.

Sony, the largest manufacturer of CD audio players, announced CDU-400 and CDU-450 stand-alone drives with SCSI out. The 450 has audio added. Toshiba's XM-200 is a full-height stand-alone unit with audio optional. I did not locate the Panasonic and Sanyo CD-ROM drives, though they have been announced.

WORM. Write-Once drives were shown by a number of manufacturers. The 5 1/4" Winchester form factor drives are of most interest to the personal computer market as they are available for under \$5,000 for the drive and controller. I saw several of the new units at COMDEX.

Hitachi's OD101 has a capacity of 300 megabytes per side, 600 total in an SCSI-compatible format. For OEM purchase of 100 units, the price is \$4,380; the double-sided media sample is \$200.

Maxtor has made a deal with Ricoh Company, Ltd. Tokyo, to market the RXT-800S with embedded SCSI interface. This is a 400 megabyte per side, double-sided unit at large OEM prices of \$1,300. Media will start out at \$75 per cartridge. These prices are "second generation" and indicate to me that Maxtor means business in the optical drive area. An employment section ad in

the San Jose Mercury News for Sunday, November 16 from Maxtor was for senior optical design engineers. With the enormous costs of optical drive and media R&D and production engineering, I believe that this is a very smart move on Maxtor's part.

Optotech, Colorado Springs, CO showed its new AT-compatible 5984-AT at \$2,000 plus \$400 per controller. The free-standing unit with power supply is \$300 more. Optotech also offers a SCSI controller. They are the major USA player in this Japanese-dominated market.

Pioneer's DD-S5001 system comes from a company dedicated to optical storage in the write-once and read-only area. They are the only significant producer of LaserVision 8" and 12" video and video/music players. At single unit prices for drives of \$2,700, they appear to be competitively priced for a first-generation unit.

U.S. Design Corp, Lanham, MD offers a sophisticated DEC-oriented ESDI/SCSI cache memory controller. They also offer Q-Bus and Unibus optical disk controllers for Digital Equipment Corporation computers.

One significance of the WORM products is in their potential use as part of a "paperless" office optical filing system. Here you would receive a letter, scan it while indexing every word, and take a picture which could be compressed and then placed on permanent optical storage. The index would also be stored, or alternatively, the entire text could be stored without the "photocopy."

READ/WRITE OR ERASABLE OPTICAL DISC SYSTEMS. Write-once systems will have to compete with the consumer-driven read/write or erasable ones. The consumer erasable optical video and audio recorder/players will provide very low cost storage when converted to data and graphics products. In order to be competitive with VCR's, digital audio tape and 8mm format systems, the price will need to begin at around \$1,000 for first-generation models, expected in late 1987 or early 1988 from several manufacturers.

In the erasable field, magneto optics seems to be in the lead now. The magnetic surface is heated to a "Curie point" temperature, at which it takes only a low-powered magnetic field to reverse charge. The disc is read by a laser beam whose phase is changed slightly by the different magnetic orientation of the spot read. Erasure is accomplished by heating the surface to the Curie point and putting all zero's or whatever passes for zeros on

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Singapore Sling's

by David Hsul

Atari has announced to its overseas agents the introduction in 1987 of a new ST to be called the ST PROFESSIONAL. It will come with IBM-styled keyboard, a separate unit housing disk drives, hard disk, 4 megabytes of memory, other boards and the Blitter Chip built-in (it was not stated whether the MS-DOS IBM-interface will be built-in). Expected price? Around \$1,500. No information was available on this machine's introduction to the U.S. market.

Atari also notified its agents in the Far East of two problems associated with the ST and the corrections being implemented. The first concerns the cable connecting the disk drive to the computer. The present standard black cables are to be replaced with grey cables made by a different manufacturer. The black cable crimps and prevents disk drive operation at times. The second correction deals with the installation of a spring clip to prevent the Glue Chip from coming loose when the keyboard is typed hard. If a row of cherries appear on powering up, this could be your problem. The practice of taping the chip caused unexpected problems (the glue on this tape melts when the chip gets hot), hence the spring clip is the immediate solution by Atari.

If the ST availability with either American, German or British keyboards is not sufficiently confusing where program usage is concern, how about an ST which requires a Chinese character keyboard? As readers of this column know, a program exists, but the keyboard is not yet available. The program is called the Chinese Text Editor and is produced in Singapore for the ST by Kaihin. A version is presently available for the Macintosh and soon the IBM PC version will be available. Until the keyboard is available, you will have to paste cut-outs of Chinese characters on your ST's keyboard. Also needed are a monochrome monitor, double-sided drive, and at least one megabyte of memory. Discussions have been initiated to reach an agreement with Atari to produce such a keyboard. To print Chinese text, there is a special printer interface which connects the ST and the printer. Further, to use a Chinese Word Processor, one has to be familiar with the standard written character system used with this software, i.e., the Pinyin system. It is really quite exhaustive and requires training.

The complete package is meant for sale in the People's Republic of China (PRC), but the manufacturer has problems exporting it to mainland China (PRC). The PRC requires a Certificate of Origin for imports. It is obvious that the ST is made in the Republic of China (ROC - Taiwan) and at present the PRC does not allow import of products from the ROC. As if this doesn't present enough difficulties, the ST monitor is of South Korean origin, another country not favored by the PRC. Although the manufacturer has an office in China Importing Macintosh

computers, they are also having Certificate of Origin problems.

A solution frequently mentioned locally to the dilemma is for the agent attempting to export to mainland China to subcontract the manufacturing of the keyboard, purchase the main computer board from Atari, buy drives from Epson or Sony, and assemble the package in Hong Kong or Singapore under their own brand name. This assumes a licensing arrangement with Atari can be worked out. The Government of Hungary agreed to similar terms and is assembling an ST clone in Hungary NOW so this does not represent a radical departure from the business practices of all the parties concerned.

Merry Christmas and Happy New Year - I do miss the snow at this time of year!

Editor's note: Mr. David Hsul is a consultant to several large industries, e.g. textiles, as well as the Singapore stock market. He resides in Singapore and his column appears every other month in Current Notes.

Optical Technology Report (Continued from page 12)

the surface. The questions being solved now are production techniques for the thin film type media, reduction of the logic and optics in size and cost and standards between manufacturers for the volume consumer market.

OPTICAL STORAGE ON THE ST. A possible way for the Atari ST market to get into CD-ROM and WORM would be to use the SCSI interface now under beta test by Berkeley Microsystems to any one of several SCSI CD-ROM drives which are currently being marketed. Atari's position, reiterated by Leonard Tramiel at COMDEX, is that they will provide a CD-ROM drive with audio when it can be sold retail for under \$500. This would mean a complete landed cost in Sunnyvale of about \$250 of which \$100-\$150 only could represent the bare drive.

CD-ROM software for consumers is still limited to the \$200 Grolier Encyclopedia on disc and to the PC-SIG multi-thousand public domain software collection. I know there is more happening out there, but none of it is available at consumer and small business prices. The story is that any user must be willing to pay \$1,000 or more for the first data base because he/she must have the drive also.

Atari Small Miracles

by Mark Brown

SOUND AND THE ATARI

Welcome back to Atari's Small Miracles, the column for the lazy typists of the world who refuse to spend the time to learn to program but want to do it anyway. I'd first like to say I'm sorry for missing last month. A chinese midterm looked me in the face and said "I dare you to take time out from studying". I backed down, and unfortunately Atari's Small Miracles was sacrificed. I did well on the midterm though. The next free weekend I had, I made the basis for several months worth of columns, so now I have a backup when I'm under a similar time crunch.

This month's column, as promised, is on the topic of sound and the Atari computer. Unfortunately the Atari's sound capabilities are largely ignored: so much attention is paid to its excellent graphics that its noise generating capability is looked over. Hopefully after typing in the programs presented here you'll better understand the power your little 8-bit Atari wields in the art of noise.

First a quick reminder of terms. The Atari creates sound in BASIC with the SOUND command. The SOUND command uses the format SOUND V,F,D,L where V is the voice number from 0 to 3, F is the frequency from 0 to 255, D is the distortion from 0 to 15, and L is how loud it is, also from 0 to 15. The Atari has four independant voices, numbered from 0 to 3. The frequency is the tone of the note: the smaller the number the higher the tone. The distortion value is just weird, and in general it is easiest to remember the a value of 10 gives pure notes and anything else is for sound effects. Finally, the volume goes from 0 to 15, a small number making the tone quieter than a large one. So with those terms in mind, off we go!

VBIMUSIC

The first program this month is a rather powerful one: It lets you play music through the vertical blank interrupt. If you remember a few months back to the Small Miracles column on vertical blank interrupts, you'll remember that VBI's allow the computer to do two (or more) things at once. Well, the concept still holds: VBIMUSIC will play music while your computer does something else. Anything else for that matter. As long as you don't turn off the computer or hit system reset, the music will continue playing.

Unfortunately, there is a little work in setting up the music before you can play it: you must set up strings of characters to tell the computer how you want it to

perform. Each music string is made up of sets of two bytes: the first byte is the frequency you want played, the second is how long (in 60ths of a second) you want it played. You end a music string with a set of two zero bytes: that tells VBIMUSIC to stop and silence itself.

Each music string controls one voice, and you can have up to four music strings controlling the Atari's four voices. To set VBIMUSIC playing, use the following statement:

```
JUNK=USR(1536,ADR(M1$),ADR(M2$),ADR(M3$),ADR(M4$))
```

M1\$, M2\$, M3\$, and M4\$ are the music strings you previously created. To use fewer voices (and correspondingly fewer music strings), just don't use as many "ADR(Mx\$)" in the USR statement.

If all that seems confusing (and I'm sure it does), just look at LTTLLAMB and PLOTNOIZ for examples of how to use VBIMUSIC effectively.

```
10 C=0:FOR A=1536 TO 1685:READ B:C=C+A
  *B:POKE A,B:NEXT A:IF C<>25310305 THEN
    PRINT "DATA ERROR!!!":STOP
20 DATA 104,240,254,201,5,176,254,141,
  149,6,141,148,6,162,0,104,157,144,6,10
  4,157,140,6,169,0,157,136,6,232
30 DATA 236,148,6,208,237,169,6,162,6,
  160,43,76,92,228,173,149,6,240,85,169,
  3,141,15,210,169,0,141,8,210,141
40 DATA 149,6,170,189,136,6,208,52,168
  ,189,144,6,133,1,189,140,6,133,0,177,0
  ,72,138,10,168,104,153,0,210,169
50 DATA 164,153,1,210,160,1,177,0,157,
  136,6,136,17,0,240,22,189,140,6,24,105
  ,2,157,140,6,144,3,254,144,6,169
60 DATA 127,238,149,6,222,136,6,232,23
  6,148,6,208,185,76,95,228,1,2,3,4,5,6,
  7,7,6,5,4,3,2,1
70 PRINT "All data correct, VBIMUSIC i
  nstalled":END
```

LTTLLAMB

This program is just a demonstration of VBIMUSIC. It plays a very familiar tune with a chorus or three. Use it as a guide to VBIMUSIC and how to use it. The tune could use a lot of work (like putting pauses between similar notes), but I wasn't sure if it was worth it. Do not take this one program as an indication of my musical talents.


```

10 IF PEEK(1600)<>6 THEN PRINT "VBIMUS
IC MUST BE INTALLED!!!":END
20 DIM A$(68):FOR A=1 TO 68:READ B:A$(
A,A)=CHR$(B):NEXT A
30 A=USR(1536,ADR(A$)+6,ADR(A$)+4,ADR(
A$)+2,ADR(A$)):? "Okay, the song needs
work.":? "Why don't you do it?":END
40 DATA 0,105,0,105,0,105,0,30,92,15,1
06,15,121,15,106,15,92,15,92,15,92,15,
0,15,106,15,106,15,106,15,0,15
50 DATA 92,15,92,15,92,15,0,15,92,15,1
06,15,121,15,106,15,92,15,92,15,92,15,
92,15,106,15,121,15,92,15
60 DATA 106,15,121,30,0,0

```

PLOTNOIZ

This program is just fun: It serves no real purpose, although if you wanted to you could warp it into a primer for music theory. After RUNNING, PLOTNOIZ will take about a second to initialize then will begin to draw a line from the left to the right hand side of the screen. Use a joystick in port one to move the line up or down. When one line is done, another will do the same thing, followed by another. As soon as that is done, VBIMUSIC will kick in and will play what you just plotted. If a line goes up, so will the note. If a line goes down, ditto. Don't just make nice diagonal lines: move the line up and down a lot for the best effect.

```

10 IF PEEK(1600)<>6 THEN PRINT "VBIMUS
IC must be installed!!!":STOP
20 GRAPHICS 21:POKE 708,68:POKE 709,24
:POKE 710,148:DIM M(36),V$(486):FOR A=
1 TO 36:READ B:M(A)=B:NEXT A
30 FOR V=1 TO 3:COLOR V:Y=18:FOR X=0 T
O 79:Z=(V-1)*162+(2*X)+1:V$(Z,Z)=CHR$(
STRIG(0)*M(V)):COLOR V*STRIG(0)
40 PLOT X,Y+5:V$(Z+1,Z+1)=CHR$(6):Z=ST
ICK(0):Y=Y+(Z=9 OR Z=13 OR Z=5)-(Z=10
OR Z=14 OR Z=6):Y=Y+(Y=0)-(Y=37)
50 NEXT X:NEXT V:FOR A=1 TO 6:READ B:V
$(B,B)=CHR$(0):NEXT A:A=USR(1536,ADR(V
$),ADR(V$)+162,ADR(V$)+324)
60 GOTO 60
70 DATA 31,33,35,37,40,42,45,47,50,53,
57,60,64,68,72,76,81,85,91,96,102,108,
114,121,126,136,144,153,162,173,182
80 DATA 193,204,217,230,243,161,162,32
3,324,485,486

```

other does the opposite. Let me know of any especially interesting variations you can come up with.

Note that if you hold the button down the line will not plot. This simply gives you the option to pause a voice or turn it off altogether.

SNDEFFCT

This program shows another aspect of sound: sound effects. This is just a very simple sound effect generator that uses the VBI to make boings, beeps, clicks, and so forth. When you RUN the program, nothing will happen. It takes a simple poke to set a sound effect in motion: POKE 0,X, where X is a number from 1 to 5. Different numbers make different effects.

For those of you not satisfied with the built in sound effects, the sound effect table is at \$0679 hex, 1657 decimal. Each sound effect is six bytes: The starting frequency, the delta frequency, the starting distortion/volume, the delta volume, the number of times the effect should be looped, and the length of time (again, in 60ths of a second) each loop takes. Delta is a greek letter that means "change", so the delta frequency means "how much the frequency changes each time through the loop" and delta volume means "how much the volume should change in each loop". SNDEFFCT is capable of creating some pretty strange and wonderful noises, see how many of them you can come up with.

```

10 C=0:FOR A=1536 TO 1686:READ B:C=C+A
*B:POKE A,B:NEXT A:IF C<>26380568 THEN
? "Data error!!!":STOP
20 A=USR(1536):DATA 104,169,6,170,160,
9,76,92,228,165,0,240,90,201,6,176,26,
10,133,203,10,101,203,133,0,170
30 DATA 189,115,6,133,204,189,117,6,13
3,205,189,119,6,133,206,208,42,198,207
,208,53,198,206,240,52,170,189,120
40 DATA 6,133,207,189,116,6,24,101,204
,133,204,165,205,41,240,133,203,165,20
5,41,15,24,125,118,6,41,15,5,203
50 DATA 133,205,189,120,6,133,207,165,
204,141,0,210,165,205,141,1,210,76,95,
228,169,0,133,0,141,1,210,141,0
60 DATA 210,240,241,0,0,0,0,0,128,12
8,207,15,14,2,128,224,175,0,4,1,0,16,1
75,15,15,1,100,128,168,15,7,1,128
70 PRINT "SNDEFFCT installed":DATA 0,1
38,8,2,1

```

SCALES

Try different variations for different "songs". Set the theme with one line and have the other two surround it. Have one go above the theme then below it while the

Finally, a program that does absolutely nothing. It started out to be an editor for VBIMUSIC, but it turned out too complex (too many lines). All this version of

SCALES does is redefine the character set to a line, a whole note, a half note, a quater note, an eighth note, and a sixteenth note and print out the famliar five lines for music. If nothing else, SCALES can help some of you with learning to redefine characters, but it ought to be a start for some good programmers to bigger and better things.

```
10 DIM F$(2048):F=1024*INT(ADR(F$)/102
4):F=F+1024*(F<ADR(F$)):FOR A=0 TO 55:
READ B:POKE F+A,B:NEXT A
20 POKE 756,F/256:DATA 0,0,0,0,0,0,0,0,
0,0,120,204,204,204,120,0,12,12,12,12
,124,204,204,120
30 DATA 24,24,24,24,120,248,248,112,24
,30,24,24,120,248,248,112,24,30,24,30,
120,248,248,112,0,0,0,255,0,0,0,0
40 ? CHR$(125):FOR A=1 TO 6:? CHR$(32
+A):NEXT A:FOR A=1 TO 5:? :? :FOR B=1
TO 20:? CHR$(38):NEXT B:NEXT A
```

Well, that's all for this month. I hope you enjoyed learning a little about Atari sound. As always, I'm looking for good programs to go in this column. If you have an under ten liner that you would like to see published, send it to:

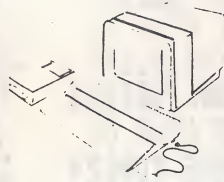
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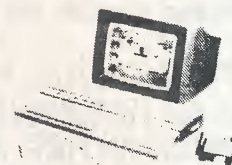
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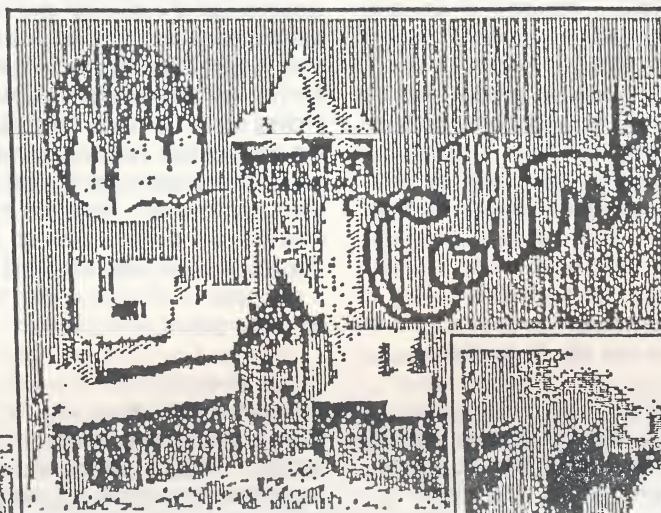
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H A R D B A L L I

Reviewed by Bryan C. Pleritz

HARDBALLI is the most realistic baseball computer game I have ever had the privilege to play. While most games are content to have block figures throwing square balls at rectangular bats, HARDBALLI has some of the most realistic graphics around. But that is not even the most important feature that has been added to HARDBALLI to make it one of the best baseball computer games. Imagine what baseball would be like if all the pitchers, batters and outfielders all had the same abilities. A rather predictable and probably boring game. Then what is it that has made baseball the nation's pastime and not just a game of throw and catch? It is that baseball consists of two teams going head to head with each player having different abilities and a manager for each side trying to find the right combination of 9 players to play at a time to win the game. In HARDBALLI, you get to be the manager.

After booting up HARDBALLI, you are greeted with the game logo and organ music like you would hear at a ball park. If you wait until the music stops, the screen clears and the game continues to load. However, if you are anxious to continue, press the fire button on the joystick and the music stops and the game finishes loading. Upon completion, the game disk can be removed from the disk drive as it will not be needed for further play. Having the game fully loaded in computer memory is a real plus as it eliminates the wait associated with disk reads and keeps the game moving.

Whether you use the fire button or listen to the music, you are next greeted by the Game Options selection menu. You must decide what type of game you want to play. There are two different teams to choose from, the All-Stars and the Champs. Using the joystick, select which team you wish to manage, whether to be the Home Team or the Visitors, and whether to play against the computer or a fellow human. For the diehard American League fans there is even an option for playing with a designated hitter. There are twelve different possible combinations to choose from. At any point in the game from here on out, if you wish to restart the game, pressing the START key returns you to the Game Options menu to make a new selection and start a new game.

Once you have made your decision, use the joystick to select the game option you wish to play and press the fire button to bring up the Manager's Decision screen where you can check the line-ups and listen to the Star-Spangled Banner. Standing for the national anthem is not mandatory but highly recommended for the baseball purists. To make starting out easy, the computer already has a line-up for both the All-Stars and the Champs. For those who can't wait to see what the action is like, press the space bar to begin play. For the more cerebral player, however, this is where the game really begins and

this is what sets HARDBALLI apart from the rest.

The Manager's Decision screen lists the computer-generated line-ups for both teams. Though both teams consist of a 25-man roster with ten infielders, five outfielders and ten pitchers, the line-ups are always the same except the pitchers, which seem to be picked at random each time you start a game. As long as the first pitch has not been thrown, either team may substitute players on the bench with players in the starting line-up. Once the first pitch has been thrown, however, all players removed from the line-up are sent to the showers and are not available for further play until a new game is started. Positions in the field can easily be exchanged at anytime during the game.

A weak point of the game is the inability to easily change the batting order. While it is not impossible to change the batting order, it is not immediately obvious either. Using a series of moves consisting of substituting players and exchanging positions, I was able to change the batting order. It is a shame that such an easy problem to solve should mar an otherwise remarkable game.

Only one team may substitute or exchange players at a time. Selecting the substitute option allows you to scan the bench of your team. The bench appears, three players at a time, at the bottom of the screen and can be scrolled through by moving the joystick up or down to see the rest of the players. If you're substituting for the first nine players listed in the line-up, you see the batting statistics of the infielders and outfielders displayed. The pitchers' statistics do not appear. The tenth position in the line-up is always the pitcher. This is because, if you choose the designated hitter game option, the pitcher does not bat and, therefore, does not appear in the batting order. If you are a National League fan and chose to play without the designated hitter, the pitcher appears in the ninth position in the batting order and in the tenth position in the line-up marked with a P:. Moving the cursor to the tenth position and substituting for the pitcher there, instead of in his batting position, allows you to review the pitching statistics of your bullpen.

There are three other options in the Manager's Decision screen that apply only to the team in the field. They are used to set the outfield (normal, shift right, shift left), the infield (normal, double play) and to issue intentional walks. The outfield shifts are quite noticeable. Shift right shifts the outfielders toward right field with the right fielder playing the line, the center fielder playing the right center and the left fielder playing in left center. Outfield normally has all the outfielders playing in the opposite direction. I

never did decide whether changing the Infield from normal to double play made any difference. There was no noticeable change in the Infielders position on the field and I was able to execute double plays with either option.

Once the outfield and Infield options are set, they remain the same until a new batter comes to the plate at which time all settings revert to normal. An intentional walk can be issued to any batter at any time by changing the No Intentional Walk option to Intentional Walk. While *HARDBALL!* is very faithful in depicting how baseball is really played, this is one time it falls short. If you issue an intentional walk, the batter immediately heads for first base without the pitcher throwing a single pitch.

Pressing the space bar from the Manager's decision screen will bring you to the playing field. There are three different screens used in the action sequences. The first one, used for pitching and hitting sequences, is the standard center field view of the pitcher's mound and home plate made famous by television. The first thing you notice about the playing screens is how closely the pitcher, catcher, batter and umpire resemble the real thing. From the pitcher's wind-up, the batter's swing, the catcher's catch to the umpire's called strike, the realism of the look and motion is maintained.

Pressing the space bar from this screen will return you to the Manager's Decision screen where you can make further changes as needed. After the batter hits the ball, whichever side of the field the ball is in, left or right, appears on the screen. If the ball is thrown from one side of the field to the other, the view changes. Either view shows second base and straight-away center as well as the appropriate outfield and foul line. Each of the three playing screens also had an inset showing a Goodyear blimp view of the base paths so that you can follow the progress of the runners around the bases when they don't show in the playing field view.

The pitching/hitting screen gives both the pitcher and hitter a couple of options. Each pitcher in the bullpen throws one to four types of pitches out of a total possible of eight, Fastball (we're talking Nolan Ryan, Dwight Gooden speed here), Fastball, Offspeed, Change-Up, Curveball, Screwball, Sinker and Slider. The type of pitch thrown is selected by moving the joystick in the direction of the arrow next to the type of pitch desired and pressing the fire button. No cursor shows on the screen so the batter does not know which pitch has been selected unless he is watching you move your joystick. Since the pitch cannot be thrown until the batter presses his fire button to indicate he is ready, if the batter is going to watch you select pitches, you can try to fool him/her. Only your first pitch selection counts. Everything after that is ignored by the computer until the batter presses the fire button. So you can make several selections and let him try to guess which one was first.

The batter has the option to bunt, start any runners on base or do nothing. The only problem is that you can only choose one option. If you want to bunt, you can't start a runner. Therefore, no suicide squeeze plays at the plate. If you try to start a runner and the base in front of him is occupied, the runner will not go. This eliminates the double steal. While it would be nice to have these options for completeness, these situations arise so infrequently, that the absence of these options detract very little from the game.

If you try to steal and are playing against a human opponent, the computer automatically tries to throw the runner out. It doesn't wait for the human player to tell it to do so. Pressing the fire button without moving the joystick results in doing nothing with the base runners and getting ready to take a full swing at the next pitch.

After the pitcher selects his pitch and the batter makes his choice, the pitcher then selects where he wants to throw the ball. The pitcher has nine choices corresponding to the nine possible positions of the joystick. Any pitch thrown right down the middle will always be a strike. It is also where the batter will most likely hit it. The other eight positions have lower probabilities of being strikes with straight up and down and straight left and right being more likely to be a strike than the four corners. The actual probabilities depend on the pitcher, the type of pitch and how many pitches the pitcher has thrown.

Moving the joystick to select the pitch causes the catcher to move his glove to indicate the position selected. There is no way to hide this from the batter. While in real baseball it is very hard to watch the catcher and the pitcher at the same time and, if you can, you don't know if the catcher is just trying to fool you, since he can make last second changes. There is no doubt in this game about where the ball is being thrown. This is not as one sided as it first appears. To compensate for this extra bit of information on the batter's part, the batter is not able to hit any ball not thrown in the strike zone. Just knowing that the ball is being thrown low and away does not insure a hit, though I must admit it helps. The batter must determine if it will be a strike or a ball and he can't know that unless he lets it go by. After selecting the location of the pitch, the pitcher presses the fire button to throw the ball. At this point, the batter selects whether he will swing high, low, inside or outside and presses his fire button to swing. Timing is very important as pitches arrive at different speeds depending on type of pitch. Swing too late or too early and miss the ball completely. Timing his swing, the batter can also take advantage of any shifts the defense has put on.

Once the ball is hit, the options at the bottom of the screen change. The fielding player has the option to throw to first, second, third or home, while the batting player has the option to try for extra bases. The

computer flashes the fielder closest to the ball and he is the only one that can be controlled. If the ball comes close to a fielder under human control, the computer will automatically have the player catch the ball. However, it is possible to move a fielder far enough away from the flight of the ball so that he will miss one that he would have caught if you had just left him alone. Happens in real life, too.

The play does not end until all runners have stopped and the ball is held by a fielder for a few seconds. This applies even if there are three or more outs. Yes, more. I was able to achieve five outs in one inning. Theoretically, it should be possible to get six.

HARDBALL is an excellent simulation of the real game even with the few short comings noted above. While it may sound complicated to some, it can be played on a very simple level by ignoring the Manager's Decision screen and just playing the actions screens. My four and six year-old sons love to play it this way. They, as well as myself, enjoy the excellent graphics and music provided by the game. See you at the ball park.



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Music, MIDI, and You

by Mike Lehr

MIDI at ATARIFEST: MUSIC, PIANOS and SOFTWARE

WOW!!! The music room shared in the spectacular success that characterized the whole ATARIFEST. Of course, its ultimately the people attending who make any show worthwhile, and the MIDI room was packed rows deep with people throughout the day. Terry White and myself, who work gladly but sometimes wearily to promote ATARI music, appreciate the overwhelming interest that you showed.

Local artist Dave Hunt laid down a multitrack recording in the ATARI's memory and replayed it to an applauding crowd. Tutorials were given, featuring Terry White's MIDI slide show, which is available on the WAACE ST bulletin board and on Blackbird (301-445-5496). With help from L&Y ELECTRONICS and CHUCK LEVIN'S MUSIC CENTER, we put together several instruments with hardware and software to match for the 130 and the ST.

Some astounding capabilities of ATARI music software were demo'd throughout the day. These included making one instrument sound like an entire orchestra, composing music with the mouse only, and programming the ST's sound chip to sound like different instruments. On-the-spot volunteers had their recordings edited and merged as though they were documents being word-processed. The edited recordings were then played back in different keys, at different tempos, and sounding like different instruments.

THIS MONTH WE'LL ANSWER the questions that came up most often in the MIDI room. Somewhat to our surprise, many of you wanted to know about using MIDI keyboards instead of pianos. Because this is a somewhat specialized area, we have an interview on the subject with John Chase of CHUCK's keyboard department. Other questions related to whether software was available to perform some musical task, such as sequencing songs, printing scores, displaying recorded music on the screen, or remotely adjusting the synthesizer controls.

MIDI PIANOS

An Interview With John Chase

ML: John, There must be dozens of keyboards here so let's start with an obvious question: "Are any of them MIDI pianos and how are they different from a good synthesizer keyboard?"

JC: Several of these instruments are designed specifically to be pianos, but of course, there are going to be some differences among them. The thing that makes them pianos is that they have the look and feel of piano keys and the sound of a high quality piano. You can get 88 full size keys just like a

piano, and even a real piano action inside, which is important to serious pianists. A good example is the Roland over there, which has a balanced, weighted, grand piano action with wooden keys. Synth keyboards don't go to as much trouble to replicate a real piano feel.

ML: Some first-time buyers will need to know that the "action" is the mechanism inside a wood piano that makes the piano hammer strike a string when a key is pressed. In a MIDI piano, the action makes the hammer flip an electric switch. Having said that, let's get back to the kind of sound available from the MIDI pianos.

JC: The sounds available are so incredible you have to hear them to appreciate them. Although the Emax over here is not strictly a piano, it has the easiest sound to describe in words. It uses the kind of digital sampling technology used on compact disks, where the sound is encoded and stored as digital data on the disk. Digital sound data for the Emax is stored on diskettes, so if you want to hear a grand piano, you pop in the diskette labeled "Grand Piano". If you want to hear a tenor sax, you pop that disk in, and it sounds like a compact disk recording of a tenor sax. The Roland gives you a lot of alternative sounds, too, including a superb grand piano, but the Roland uses "structured adaptive synthesis", and how do you describe that without hearing it?

ML: I know what you mean. Incidentally, I've heard the Emax. Even though I don't know details about the instruments or their quality, I must say the Emax blew me away. It faked me out of my socks the first time I heard the sax. By the way, while we're talking about all this great sound, some of our readers will want to know where the sound "comes out." Do you need special amplifiers?

JC: No. You can use your stereo or listen through headphones. This can be quite an advantage, because some piano passages can't be played right unless you bang hard on the keys, which can be a problem at night or in an apartment. With the MIDI pianos you just put on the headphones or lower the volume. What you do need to watch out for is the difference between a MIDI piano and a MIDI keyboard controller, where you get the piano keyboard and action without the sound circuits.

ML: Would you elaborate on that, John? This is real important and you might save a reader or two from a big mistake.

JC: Sure. With any MIDI keyboard, pressing a key flips a switch and sends out a digital command, which is the same thing that happens when you type at a computer console. With the MIDI keyboard, the digital command activates a sound circuit to play a note, but the keyboard doesn't know whether the sound circuit is right there in the instrument or at the other end of a long MIDI cable. So you can buy the piano keyboard with or without the sound circuits built in, depending on what other equipment you own or plan to buy. The keyboard controllers don't have sound circuits; they just send out MIDI commands.

ML: John, we've been comparing MIDI pianos with wood pianos, but this would probably be a good point to compare MIDI pianos with non-MIDI electric pianos.

JC: Sure, but there's still some important differences between MIDI and wood and I'd like to point them out, too. The biggest differences are price and durability. You can get the Roland we've been talking about, which is a top-of-the-line MIDI grand piano, for under \$3,000. The Emax goes for \$2,700 and an excellent keyboard controller like the Yamaha KX-88 goes for \$1,395. These are all first-class professional quality instruments. They're rugged enough to be trucked around from job to job, and they have to be reliable or they lose their main market, which is working musicians. To get that kind of sound and durability in a wood piano you could easily spend several times as much. To get a competitively priced wood piano you would trade-off sound quality, long-term durability or both.

The other advantages over wood pianos include ease of maintenance and added options. You don't have to periodically tune MIDI keyboards. Wood pianos can be a nuisance to tune, especially if they're cheap, or in humid areas like this, or when the piano gets older. Also, it's nice to press a button once in a while and sound like a harpsichord or a saxophone.

Now as for purely MIDI advantages, speaking to an audience of Atari owners, this part of the interview is for me like the icing on the cake and the cherry on top put together. Every MIDI piano has the same MIDI plugs as on the Atari ST or on the adapters used with the 8-bit software. That means your MIDI piano can communicate to and from your computer. You can record your playing in memory and store it on diskettes, and you can play back anything in memory without touching the keys. Now here are some specific things that are difficult or impossible to do with non-MIDI pianos or ordinary tape recorders.

If you have a child that's learning to play, you or a teacher can record a week's lesson correctly played on a diskette. Alternatively, you can enter the music in the computer directly. Either way, the computer will let the student be recorded so that his or her playing and the correct playing can be easily replayed together and compared. Learning to play better involves, among other things, noticing what

you're doing and how to improve it. Nobody notices as much when they play as when they can listen to their recorded playing, especially if it can be simultaneously compared with a correct version.

Also, any teacher or professional will tell you that good playing requires the hard parts of a song to be played repeatedly and slowly at first. With MIDI you can play a section of a correct version repeatedly and play along with it. You can slow the music down and gradually increase the tempo, which you can't do at all with a tape recorder. If you have trouble coordinating the left and right hands in some passage, you can record one hand until it's correct, and then play it back while recording the other hand until the other hand is correct. MIDI software will easily let you turn off one or the other hand as you please.

Finally, there are a bunch of fun things you can do only with MIDI, although some depend on your set-up. You can issue MIDI commands that control (play) other MIDI instruments from your keyboard, which is why the MIDI pianos have buttons and wheels as well as the keys. You can also play your keyboard from other MIDI instruments. If you own a drum machine or an inexpensive synth, you can back yourself up. You can download arrangements from bulletin boards or upload your own songs to, say, CompuServe, making them available around the world. And, of course, you can do the other things we talked about earlier, such as sounding like a sax, or whatever.

ML: John, I want to thank you because it's been an informative interview. Anything else you'd like to mention before we wrap it?

JC: Well, first of all, thanks to you also because, naturally, I like the publicity. But also I want to urge potential piano buyers to at least try the MIDI pianos. We find that if a serious customer comes down where they can feel the keyboard and hear the sound, the pianos sell themselves. Some people who wouldn't dream of word processing with quill pen also won't consider anything musical if it's electric. But the same technology that allows word processing at the speed of light also can get you the MIDI version of a 50,000 dollar wood piano for 3,000 dollars or less, plus saxophones or whatever on the side and the whole range of MIDI possibilities. To put it another way: MIDI pianos get you POWER WITHOUT THE PRICE. So I would think twice before I bought anything other than a MIDI piano, and three times if I already owned an Atari.

SOFTWARE SUMMARY

This is going to be a concise sampling of Atari MIDI software, focusing mostly on programs that help you create and process musical sequences of MIDI commands. Feel free to call me with additional holiday shopping questions you need answered (not just software questions). I enjoy taking your calls, and it lets me

know what to talk about and how to communicate it. You can reach me at (703) 931 - 9447, but please call before 10:00 PM Eastern time.

The most important consideration for some of you is whether to get 8-bit or ST software. At the risk of being indelicate, let me bluntly urge you to go with the ST if you have a choice. Although worthwhile 8-bit packages are available, the ST's extra horsepower means you get better software for less, and the ST has attracted the attention MIDI software developers because of its price/performance ratio and built-in MIDI ports.

In fact, some awesome new MIDI packages for the ST were unavailable at the show, and I will tell you what I can about these professional quality packages after describing the show software. Packages demo'd at the ATARIFEST included Music Studio, MIDI-Track III, EZ Track ST, and MIDI Magic. They have different pros and cons. Also, remember that a brief review like this won't tell you every feature of every package.

Music Studio (from Activision) is an inexpensive amateur package especially useful for the non-keyboard player. The ST version (demo'd at the ATARIFEST) requires color, but provides thoughtfully laid out GEM-like screens. Traditional music notation can be input by clicking on a music staff with the mouse, and blocks of music can be edited like blocks of text. The resulting music can be used to drive several MIDI instruments, and can be output (crudely) to a graphics printer. A special screen lets you program the ST sound chip, which can also be driven by the music you enter. Thus, you can start making music with Music Studio before you buy a MIDI instrument. The major drawbacks of Music Studio are the lack of a usable means of recording MIDI instruments and the limited range of MIDI and musical commands supported.

In contrast, MIDI Track III for the 130 and EZ Track ST (from Hybrid Arts) are designed for people who play a MIDI instrument well. These packages record MIDI instruments easily but provide more or less limited editing capabilities. EZ Track ST is an inexpensive but excellent GEM application with easy-to-understand menus and a user friendly screen that looks like a twenty track tape recorder. EZ Track's biggest drawbacks are its inability to display the music in any way, and the lack of a step-edit mode, which allows a user to skip to a selected point in the song, "freeze-frame" the music, and make revisions. Even the recording capabilities could be improved (what couldn't?), but all things considered, EZ Track ST is a class program when viewed as a MIDI tape recorder. Compared to EZ Track ST, MIDI Track III:

- has more edit capabilities, including step edit.
- has only 16 tracks
- due to limits of the 130, is less user friendly in all respects, including screen display.
- is very expensive including required external MIDI hardware

- also displays no music.
- should also be used only by a good player, but can be used by such a player for professional recording.

MIDI Magic (from Micro-W) is a selection of prerecorded player piano performances converted to MIDI format. You only can play the recordings provided, but these include original player piano performances by such artists as Scott Joplin, George Gershwin, and Liberace. Also, MIDI Magic is cheap.

And now (drum roll....) the best, which was saved for last. Dr. T's Keyboard Controlled Sequencer (KCS) for the ST may be the professional package providing the recording, display, and editing capabilities so many of you asked for in one place. Having just got KCS, I don't want to make definitive statements now. But that may change by the time you read this, so feel free to call the above number.

In fairness, it should be mentioned that Hybrid Arts claims its high-end ST sequencers are around the corner. Hybrid has a deservedly excellent reputation for its MIDI software and its commitment to the ATARIs (so does Dr. T's). Still, I have yet to see a Hybrid copy on the east coast or meet a session musician using the new program. Incidentally, several musicians at the ATARIFEST asked about scoring, and Hybrid and the Dr. are both developing professional scoring programs for the ST.

HAPPY HOLIDAY

Being a member of the ATARI community has been an amazingly rewarding experience, far more than I imagined when I bought my ATARI six months ago. In reflecting on why this is so, it came to mind that ATARI enthusiasts, like musicians, are generally doing what they really love to do. That seems to make the world a better place, and it's made it a pleasure to be in this corner of the world for the last six months.

Have a safe, happy holiday and God bless.

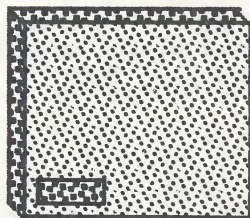
Mike Lehr is an applied mathematician for the United States Department of Energy, and is also an amateur musician and an avid ATARI enthusiast. Beginning in 1987, you can look for different articles by Mike to appear from time to time in other ATARI publications, such as ST Applications.



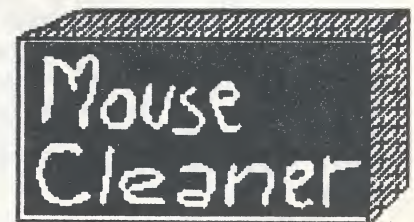
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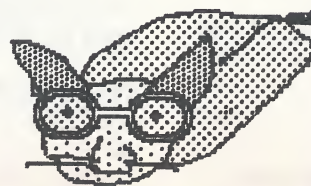
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Battle Bytes

by M. Evan Brooks

ANNUAL WARGAME OVERVIEW

This article will rate every wargame currently available for the Atari computer. In deciding upon the aspects of a computer wargame, there are certain selections that one must make. Usually, levels of difficulty range from INTRODUCTORY to INTERMEDIATE to ADVANCED, with gradations shading between these parameters. In addition, the primary medium must be considered: LAND, SEA, and/or AIR; and finally, the level of the simulation — TACTICAL (man-to-man up to company-level), OPERATIONAL (battalion-level to division-level) and STRATEGIC (corps-level to theater army or higher). This review will delineate the games available by levels of difficulty. Within each level, the subject game will be characterized by its medium, simulation level and overall recommendation. If the game has been reviewed heretofore, the issue of Current Notes is stated. Overall recommendations are noted by asterisks following the game title:

- 0 = avoid
- * = minimally adequate, at best
- ** = buy ONLY if interested in this period
- *** = recommended
- **** = highly recommended
- ***** = a MUST HAVE

In addition, adjustments to ratings from last year's review are noted by "+" (upgrade) or "-" (downgrade).

INTRODUCTORY LEVEL

AFTER PEARL (**1/2+) [SuperWare, \$19.95] A strategic simulation of the War in the Pacific (1941-1945, the game bears little resemblance to history. However, it is fun and quick to play (c. 45 minutes for the campaign). Recommended for the novice; a real "player". (CN, 2/85) [SEA/AIR]

ARMOR ASSAULT (0) [Weber, \$?] Thankfully no longer available, this game of tactical armored warfare is guaranteed to deter the most dedicated gamer.

BATTALION COMMANDER (**) [SSI, \$39.95] A tactical contemporary portrayal of armored warfare. With built-in as well as design-your-own scenarios, the game offers a myriad of options. Easy to play, its utility is damaged by its ahistorical lessons learned. (CN, 12/85) [LAND]

BROADSIDES (****) [SSI, \$39.95] A tactical simulation of ship-to-ship combat during the Napoleonic Wars. With both an arcade and tactical option, one may add layers of difficulty at his own pace. Quick play times and ease of operation make this a necessity in any wargamer's library. Highest recommendation. (CN, 9/84) [SEA]

COLONIAL CONQUEST (**1/2) [SSI, \$39.95] A strategic/economic simulation of the Age of Imperialism. The manual is more difficult to comprehend than the game is to play. Multiple-player interaction is strongly recommended. A cross between the board games of Risk and Diplomacy. (CN, 10/85) [LAND/SEA/ECONOMIC]

COMBAT LEADER (**-) [SSI, \$39.95] A tactical simulation of armored warfare (squad/platoon) over the last 40 years. With built-in as well as design-your-own scenarios, the game offers a myriad of options. Graphics are quite primitive, but the scenarios are quick. BATTALION COMMANDER, by the same designer, is the more recent design (with better graphics). [LAND]

EAGLES (***) [SSI, \$39.95] A tactical simulation of World War I aerial combat. The ability to design-your-own scenarios as well as those already extant offer hours of fun. However, realism is moderately low, and the slow pace of the game can deter the only mildly-interested. Nevertheless, the only simulation covering this period. [AIR]

EASTERN FRONT (****) [APX, \$?] An operational/strategic simulation of the German invasion of Russia during World War II. The cartridge version offers both beginner and advanced scenarios. This is the oldest simulation covered, dating back to 1978. It is still an essential component to any wargamer's library and bears the HIGHEST recommendation. It may be difficult to find, but you cannot afford to pass this one by! (CN, 7/84) [LAND]

FIELD OF FIRE (**1/2) [SSI, \$39.95] A tactical simulation of squad-level operations on the Western Front during World War II. Scenarios are varied and enjoyable; however, this reviewer is not overly enthused about the historical accuracy and lessons learned from this simulation. Nevertheless, it is a good introduction to computer wargaming. [LAND]

FIFTY MISSION CRUSH (**) [SSI, \$39.95] A tactical recreation of the bomber offensive against Germany during World War II. Realistic but dull, with little room for player abilities. (CN, 11/84) [AIR]

FLYING TIGER (0) [Discovery, \$?] A tactical air-to-air simulation of World War II (Pacific Theater), the graphics, realism and play value are sufficient to deter anyone from further play. [AIR]

JAGDSTAFFEL (0) [Discovery, \$?] A tactical game similar to FLYING TIGERS, only occurring in the European Theater. Just as bad as FLYING TIGERS. [AIR]

LEGIONNAIRE [AH, \$19.95] A tactical (?) simulation of

warfare by the Roman legions against various barbarians. Quickly learned and playable in a single sitting, it bears obvious resemblance to its more successful ancestor EASTERN FRONT. A good introduction to computer wargaming, as it combines aspects of arcade play and wargame play. [LAND]

LORDS OF CONQUEST (***) (EA, \$34.95) A strategic/economic game of conquest. Relatively primitive graphics are coupled with a map maker and map options to make a very interesting multi-player game. As a solitaire effort, it is not as interesting, but still retains some appeal. [LAND/SEA]

NAM (**) [SSI, \$39.95] An operational simulation of battles in Vietnam. Its easy play is marred by its complete ahistoricity vis-a-vis airmobile assault and gunship employment. Enjoyable as a "shoot-em-up", but laughable as a conflict simulation. [LAND/AIR]

NAPOLEON AT WATERLOO (***1/2+) [KrenTek, \$34.95] An operational simulation of the most famous battle in history, this game has the potential to be great. However, execution leaves something to be desired; historical accuracy and valid lessons learned are a definite minus. With multiple scenarios, it remains the only playable Napoleonic wargame. (CN, 7/85) [LAND]

OPERATION WHIRLWIND (**1/2) [Broderbund, \$?] The ancestor of FIELD OF FIRE and PANZER GRENADIER, this tactical simulation offers an assault on a city during World War II. In many ways, it is more interesting than its descendants, but it is difficult to find. [LAND]

PANZER GRENADIER (**1/2) [SSI, \$39.95] A tactical simulation of armored warfare on the Eastern Front during World War II, its lessons learned are not overly accurate. Reconnaissance by fire is overemphasized, and opportunity fire is hit-and-miss. Overall, a solid game, but lacking panache. [LAND]

SARATOGA (*) [Antic, \$19.95] An EASTERN FRONT clone, this operational strategic simulation of the American Revolution in 1777 is destroyed by marketing technique. With documentation available on the disk flip side, the lack of a hard-copy map (specifically referred to in the documentation) makes the game almost unplayable. [LAND]

SHILOH (**-) [SSI, \$19.95] This operational recreation of a Civil War battle has been superseded by the computer wargame "state of the art". Easy to learn and play, this game is not so much a historical study as a "beer and pretzels" wargame. Still fun to play, although the graphics are primitive. [LAND]

SIX GUN SHOOT-OUT (**1/2+) [SSI, \$39.95] A tactical man-to-man simulation covering famous Old West scenarios (both historical and Hollywood). Primitive graphics detract from this simulation, but it is quick and easy. Historically inaccurate, its quick playing time and enjoyment somewhat make up for its defects. (CN, 9/85) [LAND]

TIGERS IN THE SNOW (*1/2) [SSI, \$39.95] An operational simulation of the Battle of the Bulge during World War II, its primitive graphics and play mechanics have been superseded by more recent efforts and limit its appeal. [LAND]

WORLD WAR III (0) [Crystal, \$?] An operational simulation of conflict in the Middle East involving American and Soviet forces, this game is primitive, obsolete and not enjoyable. Thankfully, it is no longer available for sale. [LAND]

INTERMEDIATE LEVEL

CLEAR FOR ACTION (1/2) [AH, \$34.95] A ship-to-ship simulation a la BROADSIDES. However, this simulation is broader in scope and allows for multiple ship actions. With potential for greatness, its execution dooms it; primitive graphics coupled with horrendous user interface make this simulation barely marginal. [SEA]

CLASH OF WILLS (**) [DKG, \$34.95] A strategic simulation of war in Europe during World War II (both Eastern and Western Fronts). Primitive graphics and poor user interface coupled with extremely poor documentation will deter most players. Yet, the sheer scope of the simulation offers some playability and enjoyment. [LAND/AIR]

CONFLICT IN VIETNAM (****) [MicroProse, \$34.95] An operational simulation of battles in Vietnam 1954-75. Historically accurate, it teaches more than one would expect; its basic problem is that operational warfare in Vietnam was rarely decisive, and for the gamer looking for clear-cut resolutions, this simulation may raise more questions than it answers. Recommended for those wishing to learn as opposed to those looking for sheer "playing" fun. [LAND/AIR]

COSMIC BALANCE I, II (**1/2) [SSI, \$34.95 each] Space opera, COSMIC BALANCE I is a tactical simulation of space combat a la STAR TREK. Input is via keyboard, and graphics are primitive. COSMIC BALANCE II offers a strategic expansion of the Cosmic Universe through emphasis on economic expansion. Somewhat dated by later efforts, cf. IMPERIUM GALACTUM. [SPACE]

CRUSADE IN EUROPE (****1/2+) [MicroProse, \$34.95] An operational/strategic simulation of the Western Front during World War II, the scenarios offer more value for the money than most other games. The campaign suffers from a certain lack due to the artificial intelligence, but for the intermediate player, its mechanics and play give this game a high recommendation. (CN, 3/86) [LAND/AIR]

DECISION IN THE DESERT (****1/2) [MicroProse, \$34.95] An operational study of the Desert Campaign in World War II, it offers a fascinating study, which will teach the intermediate player true aspects of armor desert warfare. While more accurate than CRUSADE IN EUROPE, its scope is much less broad. Highly recommended. [LAND/AIR]

EXCALIBUR (****) [APX, \$?] A strategic simulation of Arthur's attempt to forge a kingdom out of the British Isles. While introductory in play mechanics, the sheer scope of the game raises its complexity level to that of intermediate. This is not intended as a criticism; the game is a wargame by default — economic ramifications are the heart of this fine simulation. Rarely available for sale, it remains a fine game and a worthy addition to one's library. [LAND/ECONOMIC]

GREAT WAR 1914 (*1/2) [DKG, \$39.95] An operational simulation of the opening months of World War I (both Eastern and Western Fronts). It suffers from the same flaws as CLASH OF WILLS and does not have the same depth as its predecessor. [LAND]

KNIGHTS OF THE DESERT (**) [SSI, \$39.95] An operational simulation of Rommel's Desert Campaigns in North Africa during World War II. It was the first SSI product to offer multiple stacking in the same hex. The concept was a failure. Slow and ponderous, its recreation of the African Campaign does not deliver its potential. [LAND]

MIDWAY (*1/2) [AH, \$?] An operational/strategic simulation of the Midway Campaign, this game has been superseded by improvements in computer simulations. Graphics are extremely primitive. [SEA/AIR]

NORMANDY, BATTLE OF (***1/2) [SSI, \$39.95] An operational simulation of the Normandy invasion, this game is moderately easy to learn (although the documentation covering the actual landings leave much to be desired). A real player, it suffers somewhat from lack of joystick input. But overall, a solid intermediate level game. (CN, 3/85) [LAND/AIR]

NATO COMMANDER (***) [MicroProse, \$?] An operational/strategic simulation of the next war in Europe, this reviewer is more fond of the game than the designers currently are. While the mechanics are relatively easy to learn, playability in the larger scenarios is limited. Still recommended overall. [LAND/AIR]

PANZER JAGD (*-) [AH, \$?] A tactical simulation of armored warfare during World War II, it is obviously dated by newer efforts. [LAND]

PARIS IN DANGER (1/2) [AH, \$?] An early game superseded by newer efforts, this operational/strategic simulation of Napoleon's 1814 Campaign suffers from poor graphics and lack of solitaire playability. [LAND]

ROME AND THE BARBARIANS (***) [KrenTeck, \$34.95] A strategic simulation of the Fall of Rome. Easy game mechanics coupled with difficult strategic decisions make this a real player. Still, the game system as itself appears too tactical for such an ambitious strategic simulation. Recommended for the aficionado. [LAND]

SILENT SERVICE (****) [MicroProse, \$39.95] A tactical simulation of submarine warfare in the South Pacific during World War II. Superb graphics coupled with

detailed rules, historical accuracy and layers of complexity make this simulation a necessity in every gamer's library. Why wait? If you don't have it, you should! (CN, 2/86) [SEA]

STARFLEET I (****) [Cygnus, \$49.95] This tactical space simulation is a worthy descendent of the early mainframe STAR TREK games. The multitude of options and ease of play make this an enjoyable product although it can prove repetitious. Overall, recommended. (CN, 6/86) [SPACE]

T.A.C. (*) [AH, \$?] A tactical simulation of armored warfare during World War II. Similar to PANZER JAGD, it suffers from development obsolescence. [LAND]

ADVANCED LEVEL

ANTIETAM, BATTLE OF (***) [SSI, \$49.95] An operational simulation of the bloodiest day in American history, this simulation is historically accurate, although not as interesting as GETTYSBURG. Layers of complexity from basic to advanced offer many options. The basic problem with the simulation is the battle itself — the North outnumbered the South almost 3-2, and since the player is aware of this, a World War I-type bloodbath occurs. In the solitaire option, the player as the Confederate would prove more interesting. (CN, 5/86) [LAND]

ARDENNES, BREAKTHROUGH IN THE (**) [SSI, \$59.95] An operational simulation of the Battle of the Bulge, this game suffers from poor graphics; determining the road network is a lesson in frustration. Also, moves may not be adjusted in mid-play, and overall, the clumsy user interface dooms this simulation. [LAND]

CARRIER FORCE (***1/2) [SSI, \$59.95] A tactical/operational simulation of the major Pacific carrier battles of World War II, this game is extremely slow in execution and its historical accuracy may be questioned in some areas. Despite these flaws, it covers its subject in an interesting way and is worth the effort for anyone desirous of learning about the period. (CN, 10/84) [SEA/AIR]

CHICKAMAUGA (*1/2) [GDW, \$49.95] A tactical/operational study of the Battle of Chickamauga, this game offers a plethora of detail. However, its graphics are so primitive that they doom the game before it gets started. One has come to expect more in graphics than this game can begin to deliver! [LAND]

COMPUTER AMBUSH (***1/2) [SSI, \$59.95] A tactical man-to-man simulation of patrolling in World War II. The graphics are somewhat primitive, but the details make up for this deficiency to a large extent. (CN, 4/85) [LAND]

GETTYSBURG: THE TURNING POINT (****) [SSI, \$49.95] Similar to ANTIETAM, this tactical/operational simulation of the most famous battle in American history is more successful. Tense and complex, it is a fascinating game and a worthy addition to any gamer with the least interest in the American Civil War. Players should

choose to begin on the second day for a more familiar simulation; the campaign scenario will generally result in positions other than historical, but it is interesting to see the might-have-beens. Highly recommended. (CN, 11/86) [LAND]

GULF STRIKE (*1/2) [AH, \$29.95] An operational simulation of contemporary combat in southwest Asia (CENTCOM). Detail and historical complexities plus orders of battle abound. But the graphics are enough to deter all but the most determined. The map, in shades of orange and black, resembles a Big Mac run amok or a sick Princetonian. [LAND/SEA/AIR]

IMPERIUM GALACTUM (**) [SSI, \$39.95] A strategic space empire-building game, this is a successor to COSMIC BALANCE II. More detailed, and potentially more interesting. [SPACE]

KAMPFGRUPPE (****) [SSI, \$59.95] A tactical simulation of warfare on the Eastern Front during World War II, this game was Computer Gaming World's Game of the Year (1985). Multiple options abound; the only defect is the lack of joystick input. Still, an essential addition to any wargamer's library. (CN, 6/85) [LAND]

KAMPFGRUPPE SCENARIO DISK #1 (**) [SSI, \$21.95] Five additional scenarios for KAMPFGRUPPE; they are not really necessary. Historical accuracy is subject to question in some of the scenarios, and the basic game itself can recreate any options the player wishes. [LAND]

MECH BRIGADE (***) [SSI, \$59.95] KAMPFGRUPPE in modern warfare on the Central Front. While the game bears an obvious resemblance to its predecessor, the effects of ATGMs and hull-defilade firing positions raise questions as to its accuracy. A welcome addition is the inclusion of smoke as an obscuring force. (CN, 10/86) [LAND/AIR]

OBJECTIVE: KURSK! (**1/2) [SSI, \$39.95] A tactical/operational simulation of the largest tank battle in history. Extremely detailed, although user input is via keyboard and somewhat tedious. Overall, somewhat bland as a result of the game system utilized. [LAND]

OPERATION MARKET-GARDEN (**) [SSI, \$49.95] A tactical/operational simulation of the World War II airborne operation ("Monty's Folly"). Similar to BREAKTHROUGH IN THE ARDENNES, it suffers from similar defects. [LAND]

RAILS WEST (***1/2+) [SSI, \$39.95] A strategic simulation of railroad expansion in the United States during the 19th Century, this is not a wargame per se. However, its economic "warfare" and educational value make it a fascinating product. [ECONOMIC/LAND]

REFORGER '88 (*1/2) [SSI, \$59.95] A tactical/operational simulation of the next war in Europe. More complex than NATO COMMANDER, but suffering from the same defects as OBJECTIVE: KURSK!. Both games utilize the same game system and seem to lack a game

"soul", although this game is somewhat the more successful. [LAND/AIR]

ROMMEL: THE BATTLES FOR TOBRUK (*1/2) [GDW, \$34.95] Similar to CHICKAMAUGA, this tactical/operational simulation of World War II desert battles suffers from the same defects. Detailed and complex, the graphics and slow execution doom it as a playable simulation. The supply and air rules are the most complex yet seen in a computer simulation, but sheer unplayability and ennui will deter most players. [LAND/AIR]

U.S.A.A.F. (****1/2) [SSI, \$59.95] An operational/strategic simulation of the Bomber Offensive over Germany (1943-1945) on a daily basis. Scenarios range from one month to two years. With German production and industrial devastation the key, it is a fascinating product. Highly recommended. (CN, 9/86) [AIR]

WAR IN RUSSIA (****) [SSI, \$79.95] An operational/strategic simulation of the entire Eastern Front (1941-1945), this game is easily learned and played. Sheer size presents the difficulty; despite its size and problems with the artificial intelligence in the later stages of the war, this is an essential addition to the serious wargamer's library.

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Accent on Basic Computing

by Ron Peters

WORD PROCESSING

Last time we discussed DOS and how it helps you communicate with your disk drive. Now let's talk about word processing, and what it does.

Word processing is a fancy name for a "process" that includes a typewriter, a printer with different fonts, scissors, paste, a wastebasket, and a Xerox machine. Sounds complicated? Not really, let's look.

First of all, let's define "fonts". A FONT is just another name for a typeface, or a style of print. These include Roman, Helvetica, Press, etc., in the familiar sizes of pica, elite, etc. Thus, a Roman typeface is a name given to a style of print, where all the letters are designed in a certain way. If the Roman typeface is in pica, then there will be 10 characters per inch (cpi) across the page. If it's in elite, there will be 12 cpi, etc.

Depending on the brand of your printer, it may be able to print in pica, elite, condensed, proportional, etc. typesizes. The style of the print will vary between brands, of your printer may be able to print in different fonts that can be "loaded" into it. Your printer manual will give you more details on this.

Let's get back to word processing. This is where you type onto the computer screen, rather than on paper, so that the text can be easily changed before printing. We'll compare this to a typewriter.

Pretend that we are writing a letter to the IRS explaining why we deducted \$1,200 for vitamins for our pet pooch, Ralph.

Let's assume that you type this letter on your typewriter, and when it's finished, you wished you had made the margins wider. No problem. With your word processing program you just issue commands to change the margins and print out the letter again. The program automatically reformats the text to accommodate the new margins. Try this with a typewriter!

Now, on that same letter, you forgot to include a sentence in the middle of the letter explaining that Ralph is really a member of the family and that it's not fair that he is not covered by your family health insurance (that's why you took the full \$1,200 deduction). Again, no problem. Just use the insert command and place the sentence anywhere in the document you'd like. The program will move everything before and after this inserted sentence to make it fit. Of course, if you later feel that the inserted sentence will be pushing your luck with the IRS, you can easily delete the sentence, and the program will automatically fill in the "holes" you just left.

Looking at your finished letter, you now discover that the second paragraph (where you itemize the \$1,200 for the Count Choc-pooch vitamins) should have come after the paragraph where you make a case for Ralph being a bona-fide dependant (and a full-time student, even though he's 96 years old by human standards). With a typewriter you would either have to retype the whole letter, or cut up the one you've just finished, paste the paragraphs in the correct order, and then Xerox the whole final mess (you flunked Cut-N-Paste 101 in school).

However, with your trusty word processing program, you easily do a "block move" and put the paragraphs in the right order. And, in less time than it takes you to read this.

If your word processing program is really state-of-the-art, it will include a spell checker that will automatically read your masterpiece and check for errors (like that one), and even give you "dictionary search" or synonym options.

What else will it do? If what I've just described is not enough to make you throw your typewriter in the trash (no, that's not the wastebasket feature; that's coming up), then read on. A good word processing program will include such features as:

- double-column printing (for your itemized deductions)
- ability to mix pica, elite, condensed, etc., typesizes
- automatic page numbering
- page "headers" and "footers" (automatically puts the same text at the top or bottom of each page)
- superscripts and subscripts (for bibliography references, etc.)
- file merge (ability to automatically put individual names, addresses, etc., on form letters)
- ability to underline
- ability to doublestrike (print over each letter for emphasis)
- change margins at the top and bottom of the page
- change the "form length" (size of the paper you are using)
- format the text in "block right" (even margins on both sides, like a newspaper column) by automatically adjusting the text

(Continued on Page 31)

Kiddies & Bits

by Susan Wolff

EDUCATIONAL SOFTWARE SUGGESTIONS

Tis the season to buy software! Know any children with an Atari? Would you like some suggestions about educational software? Here are some ideas:

MATH SOFTWARE

- 1) Basic Arithmetic by MECC. Grade level 2-6. Six programs on one disk that provide practice in math skills; operations, rounding, estimating, and making change. 16K
- 2) Basic Number Facts by Control Data. Grade level 1-3. This program provides practice in all four number operations with the numbers 1-10. Use of an animated racetrack motivates children to try to increase their speed in each round.
- 3) Math Blaster by Davidson & Assoc. Grade level 1 -6. Topics in this package range from addition to percents. There are 25 files of math facts to help improve basic math skills. Four activities, including an arcade-like game, provide variety for the youngster.
- 4) Math Magic by Texas Software. Grade level K-8. This drill and practice software includes exercises in all whole number operations, fractions, powers, and roots. The user may choose the level of difficulty and the size of the numbers used. 48K
- 5) Success With Math Multiplication and Division by CBS Software. Grade level 2-8. This program breaks the processes of multiplication and division down to very small steps. Provides practice for students having difficulty with these concepts.

UTILITY SOFTWARE

- 1) Crossword Magic by L & S Computerware. This program generates crossword puzzles using words and clues entered by the user. Great for improving vocabulary, or for students to make puzzles for their classrooms. 48K
- 2) Print Shop by Broderbund. If you don't already own Print Shop, it would be a lot of fun for the whole family around holiday time. Makes cards, banners, posters, and letterheads. Works with most printers. 48K
- 3) Atari Writer by Atari. This is a word processing package to help with the writing process. Easy editing features. 16K (Also AtariWriter Plus)

OTHER SUGGESTED TITLES

- a) READINESS:
 - Early Games for young Children by Springboard
 - Early Games Make A Match by Springboard
 - Kinder Comp by Spinnaker
 - My First Alphabet by Atari
 - Pre-Reading by MECC
- b) LANGUAGE ARTS:
 - Compu-Read by EduWare Services
 - Kidwriter by Spinnaker
 - Story Builder by Random House
 - Wordgo by Atari
- c) SCIENCE:
 - Moptown Hotel by Scholastic
 - Moptown Parade by Scholastic
 - Making Circuits by Microcomp. Workshop
- d) SOCIAL STUDIES:
 - Agent USA by Scholastic
 - Geography by MECC
 - Unlocking The Map Code by Rand McNally
- e) PROBLEM SOLVING:
 - Atari Logo by Atari

Your child's teacher would be a good source for you to find out which academic areas would most benefit from the use of software. Enjoy the giving!

Accent on Basic Computing (Continued from Page 30)

- and on and on

Of course, you can save these masterpieces on a floppy disk (for you see, most word processing programs have a form of DOS built-in), and later retrieve them for editing (making changes, corrections, etc.) or printing.

Or, (and here comes the wastebasket feature), you can delete these documents (when you get an "ARE YOU JOKING??" response from the IRS) to make more room on your disk, or get rid of the evidence.

Before you buy a word processing program, check out the features compared to other programs, but don't make the mistake of buying more features than you will ever use. For example, a program that produces an automatic table of contents isn't worth the extra price if you are only going to use the word processor to write anonymous, crank letters to the IRS.

Myself, I use AtariWriter+ and it does everything I want, and more. All for about \$39.

Next time we'll talk about "spreadsheet" programs and what they can do for you. By the way, I lied about putting a glossary at the end of each article. I think you've graduated from that level already. Keep it up.

TIPS'N'TRAPS

by Stevenson & Burke

Here we go again with yet another column. It's hard to believe it's been around for almost a year and a half now. Anyway, good news to some of you BBS callers. Merlin's Litterbox (703) might be a new source for Tips 'N' Traps. We're getting bigger and better just about every month. And now, on with the snags.

EIDOLON

Q. How do you get past the second dragon?

-Jim Stevenson

A. Each dragon has a weakness. For the first, it is red fireballs. For the second, it is yellow fireballs. For the third, it is green fireballs, etc. To figure out which fireball affects a certain dragon, try each one until you see "sparks". Fly from the dragon. That is the one you must use to kill it. Also, you can catch the fireballs with the space bar (except for red).

-David Kayden

HITCHHIKER'S GUIDE TO THE GALAXY

Q. What am I supposed to do to the dog? Feed him? If so, what? Also, how do I convince the screening door of my Intelligence?

-David Kayden

ISLAND OF THE DEAD

Q. Has anyone won on this game yet? I get the living dead and I don't know what to do after that.

-Hot Rod"

A. If you're where I think you are, say "DAG DECORP" to return the living dead.

-Craig Waive

Q. I can't figure out how to get the lantern or the shiny thing in the water.

-Wolverine"

A. You get the lantern by giving the witch the skull that is in the shack. I think the shiny thing in the water is a dead person. I think you can talk to him.

-Hot Rod"

MASK OF THE SUN

Q. How do I get passed the stone Idols, and what do I do with the urn?

-Mister Merlin"

A. The password for the stone idols is XOTZIL. As for the urn, put it on the right pedestal. That's all I remember.

-Hipple Hacker"

BALLYHOO

Q. Does anyone know how to get past the Siamese twins?

-Hipple Hacker"

LEADERBOARD

Q. Does anybody know how to read the wind?

-Buckwheat"

CHAMPIONSHIP LODGE RUNNER

Q. I was wondering how you get past the first screen. I can't get past it.

-Hot Rod"

ZORRO

Q. How do you get that ball to the other line so that you can get that thing on the other side?

-Hot Rod"

A. You have to go to the room under that one and get the plant. Then go back up to the room with the ball. Now get the ball on the elevator (left most), and take it to the top. Then, get it to go down, and make sure that the ball gets on the middle lift. You can do this by getting yourself with the plant on the far left top. Let the lift with the ball go down from there. As soon as the ball goes to the middle lift, drop to the left lift. That will take the ball to the top. If you don't, it goes down, and you lost it. Ride the left one to the ground, the ball will go to the top on the other one, and then roll off to the side, fall on that platform, and raise the door. I think that's how it's done.

-Belikose"

Q. One question. When you get underground, which direction do you go? Over to the left and up, or do you keep on going left until you find that room?

-Buckwheat"

A. You follow the gold bags. If you keep going through the doors next to the gold bags, you will find a room with a blinking boot, horseshoe, and I think a chalice (looking like the one in the boulder/plant room). You go up the stairs up near the blinking icons, and you're in the castle. Oh, also, to get the icons to blink, you will have to have gotten those items.

-Jim Stevenson

Q. How do you get underground? I got the ball to the last rope and the door opened but I don't know what to do after that.

- "Hot Rod"

A. You need the two bells, to put up in the big building arches near the graveyard. You get the bells from that room where you get the items, and also where the couch is that you bounce on. Once you have both bells on and ringing, the graveyard will open up, and you can go down.

- Jim Stevenson

ULTIMA IV

Q. Ok, I am playing a lot of Ultima IV lately and have found Nightshade but not Mandrake. I have been told to search in the Bloody Plains and the Feigns of the Dead and when I did I found nothing. Can anyone help me out?

- "Hoxore"

A. Mandrake is at location D'H"-L'H". At least that's

what I've gotten written down. Anyway, I'm not sure which one (Mandrake or Night Shade) is in the isolated spot of the swamp. If the one that is found there is Mandrake (I'm pretty sure it is), just wait for both moons to be dark, then search that spot!

- "Belikose"

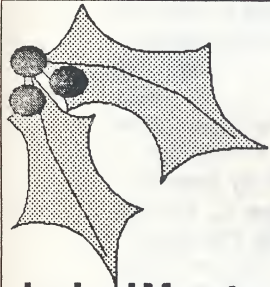
THE GOONIES

Q. The farthest I've gotten is the screen with the bird dropping eggs. I know what to do there, but I just can't do it. Anybody know how to do that screen? Also, what are the screens after that?

- "Buckwheat"

A. Well, like you said, you have to get all the eggs over to the bottom right, and get them over that bridge. They stack on top of each other, and when there are enough, they make a ladder. I think that the room after that is the room with the pipe organ. You'll figure it out when you see it. It's pretty easy, but sometimes it takes several lives.

- "Belikose"



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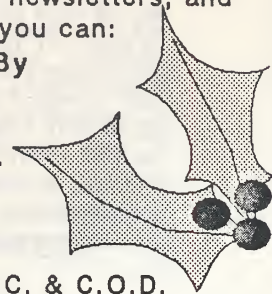
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ST Update

by Sommers & Waters

COMDEX SURPRISE

After months of speculation, the wait was over, Comdex was here. Time to see in person all those rumored Atari wonders — the blitter chip, the 2-meg and 4-meg STs, the 'EST', the IBM box, the CD-ROM, the Atari laser printer and whatever other surprises might be in store. And surprises there were at the crowded Atari booth, the biggest of which was that there was nothing there. No 2040 or 4160 STs (although they had been shown in Europe). No laser printer. No CD-ROM. No 'Atari' IBM box. No EST. No TT. No blitter chip, whoops! Sorry. The blitter chip WAS there. Although there certainly were no neon signs pointing to it. In fact, if you didn't know what machine had it and if you didn't ask for a demo, you would never know it was there. The demo available, however, clearly showed that if you wanted a computer to show several birds rapidly winging their way across the screen, the blitter chip was just the thing needed to make your day.

The WHY of Atari's choosing, with but two exceptions (the Atari 1200 baud modem and the blitter chip), not to show new hardware publicly at the Vegas show lacks solid explanation. Speculation is that the various projects were not far enough along to warrant creating an enthusiasm for any one of them, that would then slide to the bottom of the electronic pond, before they could actually be released. Word had it that the Germans had convinced Atari NOT to show anything new for fear of dampening Christmas sales. That certainly makes some sense. (The modem, by the way, was the subject of smiles and tekkie stories, true or apocryphal, which had it resting on a table with drop sash, blinking away but due to a one-of-a-kind failure, had necessitated the last minute insertion of a Hayes under its skirts to do the real work)

Although there were no public showings of new hardware, rumors persisted that Atari was showing a new machine (called the STI for STIntegrated) to select buyers. Your reporter was not a select buyer nor could he find anyone who would admit to the truth of said rumor. If a new machine was there, it was not for the public to see or know about.

The next question might then be why did Atari a week earlier show the STI at the Canadian computer fair in Toronto. If there is any logic to it, it is in the consistency with which they choose to open the door on their products outside the country, until now in Europe, and usually a number of months before we can buy it here. The most recent examples are the 2 and 4 meg upgrade machines, ST 2040 and ST 4160. Is all because of FCC approvals? One rumour that strains your credulity was that Compute had been promised an "exclusive" on the STI.

The configuration displayed in Toronto had a standard Atari ST color monitor sitting on top of the computer cpu, which was approximately 3" high, and roughly the same size as the monitor. It had a 3 1/2-inch 20-meg hard drive underneath it in the same size and shape. The keyboard was detachable and resembled the current ST 1040 keyboard with the back five inches cut off. Mouse and joystick controls were located on the back of the keyboard. The blitter chip was aboard and performing at obviously increased speed. What was not being demonstrated, and also was not at Vegas, was the 30 extra commands the blitter is supposed to have aboard. These are Atari created, new, supposedly spectacular and under wraps until the patents are solid and secured. If we find that these commands include sprites for graphics and/or separate text and graphics features, watch out Amiga, even your color graphics edge will be gone

Well, if all of this was NOT at Vegas, was the Atari booth dull and deserted? No sir, not at all. As a matter of fact, the Atari booth was perhaps THE most crowded booth at COMDEX. In part this was due to the ongoing practice of Atari providing space for third-party software developers in the main Atari booth. There were 40 individual work stations (each including a 1040 with hard drive and, in many cases, a laser printer) where various software publishers were showing off their latest achievements (this doesn't include the large MIDI demo area). Now, add 10 Atari staff to 40 developers and you have a booth with a guaranteed crowd of at least 50 people. However, add 2 to 3 people watching demos at each of the 40 stations and the crowd grows to 150-200 people. No one else at COMDEX had traffic like that!

Needless to say, it would take quite awhile to stop at each station and see what was going on. If you did manage to spend a morning and visit each developer, you would only be half done since most of the developers displaying their products had to share booths. There were morning and afternoon shifts! All told, I would guess there were about 70 different companies showing off Atari products.

What were some of the highlights? Watching Tom Hudson put Degas Elite through its paces, I was more than impressed with the versatility and power of this new graphics tool. Atari didn't have their IBM emulator, but PARADOX was there briefly showing their software-based IBM emulator. It only ran at half the speed of an XT, but it only costs \$59 too. Lots of accounting packages and other business-related software were shown. The development of established programming tools, like Mark Williams C, are making it much easier for software houses to port existing programs to the ST. Educational programs are also coming to the ST line. Both Unicorn Software and First Byte were porting their line of

educational software to the ST and the products looked very good. Paul Heckel was showing the latest version of ZOOMRACKS, much improved, even allowed you to include DEGAS-compatible pictures in a database! ComputerEyes is now available for the ST -- just stand in front of the camera and snap, there's your picture on the computer screen. VIP was showing their GEM-based version, much faster than the original. Microsoft WRITE was there, however, with Atari marketing the program, it was difficult to find a good demonstrator. BOFFIN looked much better.

Desktop publishing is just around the corner for the ST. PUBLISHING PARTNER and FLEET STREET EDITOR both looked impressive and will be available soon with other companies entering the market next summer. The output from these desktop publishing programs is clearly impressive, but be forewarned, desktop publishing is serious business. The cost of the programs, even of the ST, is almost irrelevant. You will need a printer with Post Script to take maximum advantage of these tools and that will cost you around \$5,000. The same holds true for CAD/CAM programs -- the software is just about here, but the cost of suitable printers and plotters means that these tools are for serious professionals not curious amateurs.

MichTron was at the Atari booth, but also had their own booth elsewhere. There, one could see, first hand, the ST linked to a TV and a laser disk player. The DRAGONS LAIR game was great fun. Supra also had their own booth. Although they were showing drives for other machines, the Atari display was getting the most attention. They were running a graphics slide show with over 300 different pictures flipping on the screen at the rate of about 1 per second. This gives you some idea of the speed of the Supra hard drive!

It was clear that Atari's success at this year's COMDEX was due largely to all the third party developers who were there. (Indeed, if the developers weren't there, there wouldn't have been anything to see at the Atari booth!) The developers owe Atari a vote of thanks for allowing them to get their products out into public view. But Atari also needs all these developers. No matter how inexpensive Jack can make the ST, it won't sell without software. If Atari is to succeed, it must have the software being developed for the ST by the third party market. Thus, Atari continues to encourage and support development of software for the ST.

Atari is also now starting to get into the software marketing area. Atari, for example, will market Microsoft WRITE and dBMAN. In this effort, I think Atari is treading on dangerous ground. Atari can certainly produce excellent equipment at a terrific price. They haven't, however, shown any particular talent in being able to market it. By Atari selecting 'the best' software in various areas to market under an Atari label, they open up the possibility of playing favorites and of alienating all those whose products were not 'chosen.' Let the market decide what are the best programs. All

Atari has to do is continue to produce quality equipment at a bargain price (a little advertising thrown in wouldn't hurt either). The market will take of the rest.

OTHER NEWS

MEGS A BUNCH - Milford Co. of San Jose, hopes to have an Xmas present ready for those of us who can't be president but lust for more power. A 2 meg insert board for \$399 will raise your ST 520 to a 2.5 meg machine; the ST 1040 because of its configuration will only go to 2 meg. But included in the gift is a \$100 certificate which applies against the purchase of a second board to rest astride the 1st, which means that for \$699 the electronic Rombos out there can have a 4 meg plus machine.

XMAS SOFTWARE

SOME POSSIBLE BAUBLES FOR THE TREE - Remember the PAWN and its opening screen that blew your graphics mind apart? The GOLDEN PATH, a graphics adventure like the PAWN, is soon to be. Each and every screen will equal the majesty of PAWN's first screen. Those of us who had aching wrists from fighting the clock and the other race cars in POLE POSITION for the 8-bit, prepare. SUPER CYCLE is here and ready to give you that final rush as you cross the finish line. In a similar genre AUTO DUAL has received much advanced touting, as has SKY FOX finally available for the ST. The rage in England, the premier word processor they claim is HABA WRITER II, just out here, and to be reviewed in the next issue. FLIGHT SIMULATOR is a must for those of you who fly or want to learn. NEOCHROME 1.1 may not be overshadowed by DEGAS ELITE; word has it that it possess a line accuracy that exceeds DEGAS', e.g. a square within a circle will touch at all four points in NEO 1.1. See Kuffner and Vegas for the latest in desktop publishing software; the three new boys, PUBLISHING PARTNER, FLEET STREET PUBLISHER, and TYPESETTER ELITE. In the back streets of copy backup, ST COPY 2.1 has been outdistanced (it copies a few more items) by PROCOPY 2.1. And as this happens and you read this, CAL COM of Wheaton, Md hopes to be selling STCOPY version 2.2, which will be able to "backup" everything out there to date, but the new talking educational series by FIRST BYTE - SPELLING BEE, KIDTALK, AND MATHTALK. The problem there is that first use of the disk requires the child to give his or her name. Any copy will bear that moniker, which is said with each sentence there after, and what parent wants their child to learn under an alias. Finally, Amiga has been making some of our mouths water with a program by Cinemaware called SDI (one presumes they've been in touch with the Pentagon). The graphics ostensibly exceed anything to date, including arcade version of DRAGON'S LAIR. Swallow and go see it, the ST version by Cinemaware is there, and they say, is every bit as startling as the Amiga version.

Going OnLine

by Ed Seward

A Second Look at Some ST Terminal Software

Well, I am finally getting out the updated comparison of terminal programs I promised. Before I take a look at the individual programs I want to cover a few things.

TRENDS?

In the first batch of programs compared in the July/August issue of CURRENT NOTES, two of the six programs used GEM. Five of the eight programs in this month's update use GEM. (Note: ST-TALK PROFESSIONAL also uses GEM and I would be surprised if HOMETERM in HomePak doesn't use GEM.) Using GEM is important for two reasons. First, of course, is the increased ease of use and standardization. Secondly, desk accessories can provide additional features if the menu-bar is accessible from within the program. (Several programs have done some VERY nice things with GEM.)

Another topic I'll cover here is the support of ABTF within the file transfer protocols. Many of you probably remember Russ Wetmore's proposal for this addition/modification to file transfer protocols. Two of the programs in this comparison (HABACOM and I*S TALK) support ABTF and, I suspect, HOMETERM will support it as well. The reason I like ABTF is that it sends the filename and filesize as part of the transfer. Wider use of this would cut down on one file appearing under several different names and sizes. Maybe QMI's BB/ST, Keith Ledbetter's ST BBS (name unknown), Forem ST and Michtron BBS could add the ABTF support?

OMEGA TERMINAL ST (\$29.95 version 1.2a Beta Copy)

This is one of the programs that uses a single GEM screen. There are eight macros and dialing directory entries at a time. One can load directory and macro files. There are also provisions for auto log-on.

The interesting feature of OMEGA is the disk functions — the directory selection under the file area of the menu bar. This brings up a window with two directory boxes within it. As on the Desktop, you can select the basis for sorting the directory entries (name, date, type). From here you can rename a file or delete it. A drive's directory is called up by clicking on the button for that drive (choices are A-P with active drives highlighted). Since the filenames and extensions are displayed in the directory box, you can select a specific file and have the filename, extension/type, time, date and size appear in the space provided.

As with several programs in this comparison, OMEGA does not support any emulations.

ST-TERM, Version 2.1 (\$29.95)

This program, which does not use GEM, does use multiple screens. Among the things that have made this program popular are: its price, the VT100 emulation, an autodial directory for 400 numbers and the numerous disk functions built into the program. (VT100 emulation that works with a Unix editor seems to be mandatory for a large number of ST owners in the DC area.) A list of the disk or TOS functions is included as part of the comparison summary table.

One of the changes from version 2.0 is that xmodem file transfers no longer display the characters received or sent thus speeding the transfer up some. Also, ST-TERM now supports xmodem CRC, ymodem and ymodem batch transfers. I do keep wishing Matt Singer would convert this to GEM.

FLASH, Version 1.11 (\$39.95)

The only complaint I heard on FLASH after the last comparison was on the ANSI emulation. That has been taken care of. Included on the disk is a file on using FLASH with a monochrome monitor to access a Unix system. The other changes are: the addition of 19200 as a choice of baud; 'DO' files can be installed as a "Document Type"; the baud rate can be set for each phone number in the directory; the editor has been speeded up; a new 'Alt command' "Alt-W" wipes the capture buffer clean. There have been two added commands made available for 'DO' files. One of the additions is to display a message without transmitting it and the other command is the ability to place comments within a 'DO' file.

For those of you that didn't read that first comparison of ST terminal programs I'll go over the rest of FLASH's features. A 'DO' file is a text or script file containing commands for FLASH. There are 71 commands available for use within 'DO' files. 'DO' files can be chained (one 'DO' file can call another). Four interesting abilities of the commands and 'DO' files are: to wait till a certain time to execute the rest of the commands in a 'DO' file; to load a different function key definition file, translation table, or configuration file. I should also mention that the 'DO' file commands can also be used in/on the function keys.

Table 1: ST BBS XMODEM Timing *

Program	Uploads time	Downloads time
Omega	disabled in Beta version	
ST-Term		
xmodem	2:33	2:36
ymodem	2:19	2:19
Flash		
xmodem	2:35	2:37
ymodem	2:19	2:20
HabaCom	2:51	2:48
MI-Term	2:36	2:33
IntelliCom	2:41	2:41
I*S Talk	3:27	2:35
PC/InterCom	3:07	3:17

* The same file was used in all the transfers to and from the WAACE ST BBS which uses FOREM ST with a hard disk. The file's size was 14976 bytes.

Two areas dealing with transfers that can be easily configured by the user are ASCII and xmodem. The xmodem area allows CRC or checksum in 128 or 1k byte blocks with the last block being padded with control-z's or using a size byte. The ASCII area allows you to set a variable delay after each line, metering (where FLASH waits for a character to be echoed back before sending the next character) and the selection of a prompt character for sending a line of text.

FLASH is the only program that gives the user a complete translation table. The disk comes with an ATASCII translation table for light translation of ATASCII mode on an 8-bit Atari system.

I should briefly mention that FLASH uses two screens; one for the terminal mode and another for the screen or capture editor. The terminal screen has a command line and allows the use of 'Alt' commands. The editor screen is a standard GEM screen with slider bars and menu bar. Using the editor, you basically have a simplified GEM based word processor with which to create 'DO' files and edit the capture buffer.

HABACOM, Version 1.06 (\$49.95)

HABACOM makes use of quite a few interesting ideas. As should be the case the program is completely GEM based with five terminal emulations (Haba lists six with the ST being number six). Also, HABACOM allows you to select inverse text -- white characters on a black background. It also has the file transfers set up in a nice way. Another nice choice is being able to choose between the two standard GEM text sizes. Filters to selectively change control codes have also been set up in such a way as to be easy to use.

HABACOM provides password protection of the terminal settings but not the macros and auto-logon settings. The

terminal settings files don't contain information that I can see needing protection. It is the other areas where information must be protected.

I came across one bug in the program. If the mouse is sitting at the bottom of the terminal screen then the text under the mouse is erased. One ends up with a clear column going up through the text.

What hurt this program the most is the way the dialing, macros and auto-logons are setup. Basically, you must set up the macros as a directory. Also, you can't save or load the info with single commands. That makes the dialing system awkward to use for more than a couple numbers. The other problem is the lack of 'DO' or script type commands.

MI-TERM, Version 4.0 (\$49.95)

This version of MI-TERM takes care of the color shattering that occurred at 1200 baud in version 3. The 'presets' or script commands have been improved and have a setup window that is super.

The 'presets' setup window contains three other windows; one in the top left corner displays the current 'presets'; another window in the bottom left corner displays the available commands; and the last window displays the 'preset' currently being edited. To setup a 'preset', you click on the desired preset which will then be displayed in the edit window. One then proceeds to click on the desired commands in the command window. If parameters are required for the command then a dialog box will be displayed requesting the information.

The commands that stand out among the 37 preset commands are: modem command; load configuration (and continue at preset U); label (sets a presets label as a jump point in case of error or timeout); if error jump to; if timeout jump to; jump to. As with FLASH, you can have preset wait till a particular time and have it redial until gaining access; have it download a file; save the captured process and exit the program or go on to another batch of commands.

MI-TERM still doesn't offer disk functions from within the program. However, on file transfers it does use the standard GEM "File Selector" box and keeps track of the previously selected path. The other missing feature is VT100 emulation.

INTELLICOM, Version 1.01 (\$69.95)

INTELLICOM is the only program in this comparison that allows you to set up your system so that you can control it from a remote location without any additional software. There aren't many commands accessible from the calling system but you can upload to or download from your system, list a file or get a directory. All of this is possible if the caller knows the password that you have designated. This is very handy for getting files to

or from the office if you are not fortunate enough to be using STs at work.

Autodial directories can contain twenty-two numbers with an autologon script file assigned to each entry. The script file has plenty of flexibility to handle configuring your system the way you want.

This is another program with six terminal emulations: Adds 25/Viewpoint, Lear Siegler ADM3A/5, TeleVideo 910/925, TTY, VT52, VT100. The supported file transfer protocols are xmodem, Kermit and Kermit batch.

INTELLICOM is a single screen program without any use of GEM at all. Also, a separate program must be used to edit or create the autodial directories, autologon scripts and softkeys. Some good improvements to take advantage of the ram in STs would be to add the editing of the dialing directory, autologon scripts and softkeys files to the program itself. Another thing would be to add some disk or TOS functions to the terminal program.

I*S TALK, Version 2.0
(\$79.95)

This program has several interesting features. First off is the 'Replay' which, as the manual says, allows you to record every "mouse movement, button press, keystroke, and pause". I must admit I have had fun with this feature! Another feature unique to I*S TALK is that a spelling checker is included within the packaged software. An over-simplified way of thinking of the 'Replay' is as the GEM version of a script or 'DO' file. There aren't as many commands in I*S TALK as in some of the other programs but it fits the apparent goal of keeping I*S TALK as GEM based as possible.

The use Steve Couchman has made of GEM is outstanding. The disk directory brings up a nicely labeled "Disk Directory" window with all the information displayed for each file. The other available disk functions are format a disk and delete a file. Most windows are labeled as to the function being used and allow you to make a choice or selection by using the mouse or an Alt key combination which are plainly stated.

I should mention here that version 2.0 and later of I*S TALK allows you to edit the commands sent to the modem for various functions. This means that I*S TALK should now work with the older cheaper version of the Avatex modem. Also, while I*S TALK can only keep six different numbers in memory at one time, you can load other directories. For each directory entry you can: toggle the auto redial on and off; specify a different delay period between redials; specify a function key file to load; specify the charge rates for a charge clock and have a comments area.

Let me briefly mention that the I*S TALK package includes I*S BRIDGE which allows you to leave memos to yourself and has a calendar built in.

One thing that hurts I*S TALK is the lack of terminal emulation -- particularly VT100. A nice addition would also be Kermit and ymodem transfer protocols. Batteries included should also consider making I*S TALK available in cheaper packaging and without I*S BRIDGE. At a price of \$79.95 US (according to the brochure in the box), BI has priced this program well above the competition. With very good programs listing for thirty to fifty dollars less and offering a lot of features, BI may be dooming an excellent program to a dismal level of sales.

PC/INTERCOMM, Version 3.03
(\$99.95)

For this program I am just going to use my remarks from the last comparison as nothing has changed here.

Before I got PC/INTERCOMM I had heard two things about it. First, it could be configured to access practically any system with an ST. Second, that there were no disk functions within the program. Both are true. However, four of the lower-priced programs support the VT100 emulation and three support the Kermit transfer protocol.

The main thing I like about PC/INTERCOMM is the explicitness of the error messages. Another good point for those that don't mind a lot of menus is that essentially everything can be done from one menu or another. (My point about menus is that a couple of dialog boxes properly done could eliminate quite a few menus.)

One could create an autodial directory of sorts by using the function keys. To do this set up a command string to dial a number and log you onto a specified system. One could do this for each function key and save the resulting setup as a directory. After connecting, you could load in a different setup file with function keys appropriate to that system.

The manual is such that you could practically use it to teach a course in tele-computing -- 129 pages (5x8 inches). The manual guides the user through the various functions step by step by step.

This brings me to the negative points. First, the price. With the quality and price of most of the other terminal software available for the ST, Mark of the Unicorn needs to greatly reduce the cost of PC/INTERCOMM to be competitive. Second, I don't like to repeatedly go through several levels of menus. Adding more 'Alt' key combination commands would help quite a bit. Another missing feature is an autodial menu. True the setup file can store one number. However, when one number is busy, I just move on to another or just use auto-redial which is also missing.

Overall, PC/INTERCOMM is a good program -- but not for the average user. This program is more for a business that needs to connect with a DEC or VAX system; and is going to have people with varied amounts

Table 2: ST Terminal Program Feature Comparison List

Feature\Program*	OMEGA	ST TERM	FLASH	HABA- COMM	MI- TERM	INTELI- COM	I*S TALK	PC/ I.C.
Uses GEM Interface	Yes	No	Yes	Yes	Yes	No	Yes	No
Can program have a file Installed as a "GEM Document Type"	No	No	Yes	No	Yes	No	Yes	No
Terminal Emulations								
VT52	No	Yes	Yes	Yes	No	Yes	No	Yes
VT100	No	Yes	Yes	Yes	No	Yes	No	Yes
CRT	No	No	No	Yes	No	No	No	No
TeleVideo 910/925	No	No	No	No	No	Yes	No	No
TTY	No	No	No	Yes	No	Yes	No	No
Lear Selgler ADM3A/5	No	No	No	Yes	No	Yes	No	No
Adds 25/Viewpoint	No	No	No	No	No	Yes	No	No
ATASCII supported	No	Yes	(1)	No	No	No	No	No
VIDTEX Graphics supported	No	No	Yes	No	No	No	No	No
Internal DOS/Disk Functions								
Copy a file	No	Yes	(2)	No	No	No	Yes	No
Directory Listing	Yes	Yes	Yes	No	No	No	Yes	No
Erase/Delete a file	Yes	Yes	Yes	No	No	No	Yes	No
Format a Disk	Yes	Yes	No	No	No	No	Yes	No
Path Change	No	Yes	Yes	No	No	No	No	No
Print a file	No	Yes	(2)	No	No	No	No	No
Rename a file	Yes	Yes	No	No	No	No	Yes	No
Type a file to screen	No	Yes	Yes	No	No	No	No	Yes
File Transfer Protocols								
XMODEM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
YMODEM	No	Yes	Yes	No	No	No	No	No
YMODEM batch	No	Yes	No	No	No	No	No	No
Kermit	No	Yes	No	No	No	Yes	No	Yes
Kermit batch	No	Yes	No	No	No	Yes	No	No
Function Keys								
Number of Keys	8	20	20	8	20	20	25	20
Commands can be used	No	No	Yes	No	Yes	No	No	No
Reloadable	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Script/Macro/DO files	No	No	Yes	No	Yes	(3)	(4)	No
Number of commands	0	0	71	0	22	15		0
Conditional Branching	No	No	No	No	Yes	No	No	No
Autodial Directory	Yes	Yes	Yes	No	No	Yes	Yes	No
# of numbers/directory	9	400	60			22	6	
automatic redial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
dial a list of #	Yes	No	Yes	No	Yes	No	No	No
Timer	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
visible at all times	Yes	No	Yes	Yes	Yes	No	Yes	Yes

* See program listings at end of paper for detailed company info.

(1) - Flash supports this through the translation table.

(2) - These functions accomplished by loading files into the buffer.

(3) - IntellCom only supports auto-logout scripts.

(4) - This is I*S Talk's "Replay" function. The setup of this makes it hard to give a specific number of commands.

of tele-computing experience using the terminal software. Even then, you should seriously consider one of the other programs.

SUMMATION

ST-TALK PROFESSIONAL should be available before Christmas at a price of \$29.95 looks pretty good in the beta version I was permitted to see. I didn't think to ask Russ Wetmore about the release date of HomePak but that should also be getting close. However, this will be the last of the big group comparisons I do as they seem to take longer and longer to do.

Anyway, what do I recommend for the 'average' user? I am recommending FLASH to those that ask. If I*S TALK could add some emulation, ymodem batch protocol and get the price down from near \$80 then it could really sell well also.

Some Recommendations To Programmers

I may be way off but here is what I think programmers would be wise to incorporate into their terminal software: disk/TOS functions (my pet peeve); VT100 emulation; use GEM where possible but provide for VERY extensive use of 'Alt' key combinations; ymodem batch and kermit batch protocols; Vidtex graphics. After seeing BB/ST from QMI I would make a personal wish that programs continue to add flexibility to the script,

ROGUE (Continued from page 41)

staff at EPYX I obtained some very interesting information. One important (and I feel crucial) fact is that there is one magic item which is not activated by the normal ZAP command. This item provides temporary invulnerability and permits your destruction of monsters instead of their destruction of you. I believe that most people would stumble upon this only by accident (should I drop a hint?). EPYX has a hint list, but you'll have to call or write for it. I suggest getting one. As a matter of fact, I think a hint section in the rules booklet utilizing a simple character transposition cryptogram would eliminate frustration and yet provide secrecy for those not desiring hints or answers. It sure would have made my task easier and I think would also improve the product. Bottom line time. With my new found knowledge from EPYX, I must recommend ROGUE for any serious software collection as it is a well executed product and a little slice of history.

Oh, one last thing. If any software pirates manage to journey through the Dungeons of Doom they will find an untimely and interesting death waiting for them.

John Crowl is an Electronics Technician with the US Army. Hobbies include microcomputing, photography, and gun collecting.


preset, & DO commands available to the user such that the user gets even more leeway in how he sets up the software.

Feel free to send feedback or questions to: Ed Seward, P.O. Box 6826, Alexandria, VA 22306.

PROGRAMS REVIEWED

- 1) OMEGA TERMINAL ST version 1.2f Beta from Supra Corp, 1133 Commercial Way, Albany, OR 97321.
- 2) ST-TERM version 2.1 from Commnet Systems.
- 3) FLASH version 1.11 from Antic, 524 Second St., San Francisco, CA 94107.
- 4) HABACOM version 1.06 from Haba Systems, Inc., 6711 Valjean Avenue, Van Nuys, CA 91406.
- 5) MI-TERM version 4.0 from Michtron, 576 South Telegraph, Pontiac, MI 48053.
- 6) INTELLICOM version 1.01 from Computer Toolbox, Inc., 1325 East Main St., Waterbury, CN 06705.
- 7) I*S TALK version 2.0 from Batteries Included, 30 Mural St., Richmond Hill, Ontario, L4B 1B5, Canada
- 8) PC/INTERCOM version 3.03 from Mark of the Unicorn, 222 Third St., Cambridge, MA 02142

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ROGUE*Reviewed by John Crowl*

A few of the games available for home computers are the result of mainframe adaptations. Star Trek and Zork are two of the more well known. EPYX has brought us a new one, ROGUE, to enjoy on the Atari ST.

ROGUE is an underground text-graphics adventure game in which the player must negotiate the Dungeons of Doom to reclaim the fabled Amulet of Yendor. There are 26 levels of death to be dealt with before retrieving the Amulet. That's the good news. The bad news is that you will have to fight your way back up those same 26 levels before you can claim victory. If you'll pardon my English, it ain't an easy task.

Lets look at how ROGUE is laid out. Upon booting the disk we are greeted with an excellent graphics display of an adventurer taking on a giant rattlesnake in the dungeon. At this point you enter your character's name or press return to get a character named Rodney (Dangerfield?). You are then whisked away to a three window screen which will start you on your journey.

The main display of the screen shows the map of the dungeon. It is here that you roam about finding treasure and defending your life from the numerous monsters inhabiting the dungeon. Once you're in, you don't get out until you can get the Amulet on level 26 and return it to the 1st level. Fortunately, you may save the game at any point along the way as success is sure to take a long time to accomplish. Across the bottom of this window are three bar graphs showing the characters status; hit points, health, and armor. Additionally, when it is time to eat you will be told whether you are hungry, weak, or faint (one foot in the grave).

A second window, which is just below the dungeon display, is a text area that displays three lines of information. These will tell how you are faring in combat, the types of treasure you pick up in the dungeon, and other useful bits of information.

The third window runs vertically along the right-hand side of the screen. This window displays the items that you carry in your pack. This may be expanded to a full screen display which will give more detailed information on the items you are carrying. Those items which you are equipped with (weapons, armor, rings, etc) are outlined in green.

So much for the physical layout. How well does the game play? Combat and movement are rather straightforward. Either can be done with the keypad or mouse. In combat, simply move directly towards the monster and the computer will take care of the rest. The message area will display your progress or imminent death. There are wandering monsters as well as room monsters. Leave the sleeping ones alone, you've got enough to handle.

In movement, each level of the dungeon is automatically mapped on the screen as you explore. You can toggle between the room that you're in and an overall view of the level you are on (it will, however, only show you that part of the level that you have explored).

When your character dies and you begin with a new one, you will be greeted with an entirely new dungeon layout and new functions for previously discovered magic items (that potion of increase strength is now a potion of poison). This will keep the game unique and interesting every time it is played.

Fortunately for you, there are many magical potions, scrolls, weapons, and other fabulous items to be found which will help you do battle. Unfortunately for you, the EPYX advertising copy of '26 Nerve Wracking Levels' is all too true. This has got to be the most vicious dungeon I have ever run across. The sight of a character getting repeatedly killed off no matter what I tried was extremely frustrating. This rampant exercise in death begins at about the 12th level.

It seems that no sooner then one finds the proper equipment combination to get around the great majority of monsters, a little beastie called an Aquator turns that +5 plate mail into -5 plate mail, greatly reducing any chances of survival. Although there is a ring which will protect one from the ravages of the Aquator (and it doesn't appear to be a common item), there are some monsters which are just too tough to tackle and just about impossible to run away from.

Well, after a couple of hours of banging my head against a brick wall I decided the only way I was going to progress was to make a backup copy of my saved game position every couple of levels or so (and below the 12th I do it every level). One is forced to take this route because when a game is saved and the character dies, that saved game is erased. This could be real upsetting if one was on level 24 when the game was last saved. I would have preferred to see a saved game remain at its initial status in this situation. It would at least save the time of working down that far again. But even if one makes a backup continually, this does not totally solve the problem. One may run into a situation where they can't go any further because they just don't have the proper luck or equipment to do so. It's then that starting again at level 1 seems a bit tedious.

Now that you've heard the horror story, I'm glad to say that there is light at the end of the dungeon. When I encounter this level of frustration with a game, I call the publisher for assistance (it helps to be writing a review) because I figure there is something simple I'm overlooking. Well ... , after talking to the technical

(Continued on Page 39)

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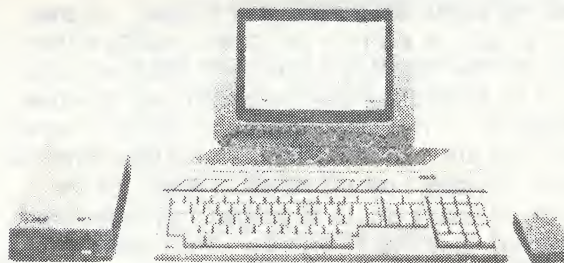
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dbMAN AT THE YACHT RACES

by John Barnes

I recently had occasion to use database management on a personal computer for something other than printing mailing labels or maintaining a simple list. This same application was done on two previous occasions using SYNFILE on an 8-bit system. Using dbMAN, I was able to structure the entire process much more rationally. As a result the work was done much faster and more cleanly.

The application described here is for scoring yacht races in which boats from several different classes compete on a handicap basis. I am sharing this somewhat offbeat database management application in the hope that *Current Notes* readers will find something to expand their horizons. The tables with the database structure (Table 1) and the annotated dbMAN program (Table 2) are self-explanatory. The rest of this article explains why we did what we did.

A competent scoring team can achieve the same results by hand more promptly, but it is tedious to write the final report and there are several stages along the way where reports are needed. If, as is often the case, changes are needed following the event, it is much nicer to simply generate a new report.

The first step in getting ready for this event is the recording of data supplied on the competitors' entry forms. The database file ENTRIES (see Table 1) shows the kind of information provided. Note that this information uniquely identifies each competing yacht and also that the factors needed for handicapping are provided. There is also a certain amount of administrative information used when tabulating scores for awards at the end of the racing season.

The competing yachts are grouped into classes. In some cases, there are boats of a single design who compete without handicapping. In other cases, the boats in a class may range in size from 18 to 40 feet and they use a handicapping scheme that allows boats of limited speed potential, that sail beyond their potential, to win. All boats in a given class leave the starting line at the same time (ST_HR and ST_MIN). In the SYNFILE version, this data had to be entered into each record or at least modified in groups of records. In the dbMAN version, the CLASSES database and the ENTRIES database are created separately and JOINed together (see Table 2). If the starting times change from the published value, one need only update a very small database,

The scorer provides the race committee with a list of all boats grouped by class and sorted on sail number within class. The classes are listed in order of starting time. A list of boats sorted by sail number is also provided. The race committee uses these lists to ensure that entry forms are on hand for everyone on the starting line and to identify boats that decided not to compete (scored as DNS). The ability to provide up to date information, neatly printed, and in multiple copies is something that race committees have found very useful. Extraneous information is eliminated from these reports so they can be easily used in the chaos that prevails

Table 1: dbMAN Structures for Relations In Yacht Scoring Database

D:CLASSES.DBF; Rec. size: 14; # of records: 6

fieldname	type	width	decimal
1 CLAS_NAM	C	8	
2 CLAS_CODE	N	2	
3 ST_HR	N	2	
4 ST_MIN	N	2	

D:ENTRIES.DBF; Rec. size: 87; # of records: 73

fieldname	type	width	decimal
1 ENTERED	L	1	
2 SAIL_NO	N	9	1
3 YACHT_NAM	C	15	
4 SKIPPER	C	24	
5 CBYRA_NO	N	6	
6 CLUB_NAM	C	8	
7 CLUB_CODE	N	2	
8 REGN	N	1	
9 RATING	N	6	1
10 SEC_MILE	N	8	2
11 CLAS_NAM	C	7	

D:FINISH.DBF; Rec. size: 15; # of records: 59

fieldname	type	width	decimal
1 FIN_HR	N	2	
2 FIN_MIN	N	2	
3 FIN_SEC	N	2	
4 SAIL_NO	N	9	1

D:RESULTS.DBF; Rec. size: 130; # of records: 69

fieldname	type	width	decimal
1 ENTERED	L	1	
2 SAIL_NO	N	9	1
3 YACHT_NAM	C	15	
4 SKIPPER	C	24	
5 CBYRA_NO	N	6	
6 CLUB_NAM	C	8	
7 CLUB_CODE	N	2	
8 REGN	N	1	
9 RATING	N	6	1
10 SEC_MILE	N	8	2
11 CLAS_NAM	C	7	
12 CLAS_CODE	N	2	
13 ST_HR	N	2	
14 ST_MIN	N	2	
15 TIM_ALLOW	N	9	2
16 TIM_ELAPS	N	9	2
17 TIM_CORREC	N	9	2
18 FIN_POS	C	4	
19 FIN_HR	N	2	
20 FIN_MIN	N	2	
21 FIN_SEC	N	2	

at the starting line as several hundred tons of small dwellings thrash around.

Table 2: dbMAN Source Code for Yacht Race Program

```

* This dbMAN program performs the entrie scoring
* process from start to finish. It can be Invoked
* from a cold start or from the CMD line after
* revising any of the primary starting databases.
*
* Set to a known state:
CLEAR
* Arrange to access ramdisk for database files
SET DEFAULT DBF TO D:
SET DEFAULT NDX TO D:
SET DEFAULT CMD TO D:
* Ignore records flagged as deleted
SET DELETED ON
DELETE FILE D:ENTRY1.DBF
* Get rid of files that might get in the way.
* These are usually old versions that would
* interfere with creation of new ones
DELETE FILE D:SAILS.NDX
DELETE FILE D:SCORE.NDX
DELETE FILE SAIL1.NDX
DELETE FILE SAIL2.NDX
*
* For JOIN to work one file must be primary, the
* other secondary. Entry1 contains information
* available prior to the start
USE FS CLASSES
USE ENTRIES
JOIN TO ENTRY1 FOR CLAS_NAM=S.CLAS_NAM.AND.ENTERED
*
* Now deal with data obtained at finish line.
USE FS FINISH
INDEX FS ON SAIL_NO TO SAIL2
*
* Preliminaries complete, now deal with the file
* That will used for final report. ZAP preserves
* structure, APPEND brings in current data.
USE RESULTS
ZAP
APPEND FROM ENTRY1
*
* Initialization needed for report computations:
REPLACE ALL FIN_HR WITH 23
REPLACE ALL FIN_MIN WITH 59
REPLACE ALL FIN_SEC WITH 59
REPLACE ALL SEC_MILE WITH RATING-600 FOR 'IMS'$CLAS_NAM
*
* Primary and secondary files will be merged using
* Sail numbers as Index. Record pointer is
* positioned at top prior to merge.
INDEX ON SAIL_NO TO SAIL1
GOTO FS TOP
GOTO FP TOP
*
* In this section we merge the entry data and the finish
data.
DO WHILE .NOT.EOF
? P.SAIL_NO,S.SAIL_NO
IF P.SAIL_NO = S.SAIL_NO
REPLACE P.FIN_HR WITH S.FIN_HR
REPLACE P.FIN_MIN WITH S.FIN_MIN

```

```

REPLACE P.FIN_SEC WITH S.FIN_SEC
*
Advance primary and secondary record pointers
SKIP
SKIP FS
ELSE
IF S.SAIL_NO > P.SAIL_NO
*
Record missing from secundar file
SKIP
ELSE
*
No match in primary file
SKIP FS
ENDIF
ENDIF
LOOP
ENDDO
*
* Now we do the scoring calculations. We start
* by clearing away excess baggage.
CLEAR
DELETE FILE D:SAIL1.NDX
DELETE FILE D:SAIL2.NDX
*
* DIST is length of race course used in
* handicap calcs:
DIST=5.45
USE RESULTS
*
* These are the calculations to figure time
* allowances, elapsed times, and, finally,
* corrected times.
REPLACE ALL TIM_ALLOW WITH DIST*SEC_MILE
REPLACE ALL TIM_ELAPS WITH
3600*(FIN_HR-ST_HR)+60*(FIN_MIN-ST_MIN);
+FIN_SEC
REPLACE ALL TIM_CORREC WITH TIM_ELAPS-TIM_ALLOW
*
* This sorts the results database into finish
* order within class.
INDEX ON CLAS_CODE*100000+TIM_CORREC TO SCORE
*
* Now we provide a label used in the final
* report to indicate placement
GOTO TOP
DO WHILE .NOT.EOF
TEST=CLAS_CODE
FINP=1
DO WHILE TEST=CLAS_CODE
FIN_POS=STR(FINP,3)
? FIN_POS,SAIL_NO
INC FINP
SKIP
LOOP
ENDDO
LOOP
ENDDO
*
* Deal with exceptions to finish places.
REPLACE ALL FIN_POS WITH 'DNS' FOR FIN_HR=25
REPLACE ALL FIN_POS WITH 'DNF' FOR FIN_HR=23
REPLACE ALL FIN_POS WITH 'DSQ' FOR FIN_HR=24

```


Once the race starts, the race committee decides where to set up the finish line (as determined by weather conditions). The distance for the race is thus established. Handicapping is done on the basis of seconds per mile of time allowance.

As the competitors cross the finish line, the race committee writes down the time of day (FIN HR, FIN MIN, and FIN SEC) and the sail number. It is quite common for boats to be overlapped at the finish and there are cases where many competitors have crossed the finish line in a clump. A reliable record of the sequence in which boats finish is all-important. Some boats elect to go home before finishing (scored as DNF). We assign them an arbitrary finish time that will sort out below any valid finishers on corrected time.

In the SYNFILE version of this application, I had to up-date an entire record in order to enter the finish time. Entering the finish times meant working through the list in sail number order while extracting the result from the finish line log. DBMAN allowed me to construct another database (FINISH in Tables I and II) that could be entered and edited in the natural (time of day) order. Given DBMAN's speed in editing, this was a painless process. As anyone who has SYNFILE knows, resorting the file to produce a new report seems to take forever. In DBMAN the process is over in a few seconds. Sometimes

there are protests or administrative actions that result in disqualification (scored as DSQ). Making a new report incorporating these changes is trivial.

I next produced an electronic version of the finish line log and, once the race committee had certified that it agreed with their handwritten one, we just let her rip. The reports were written to text files, tidied up using a word processor, and posted. With increased standardization and reliability we should be able to provide results in machine-readable form for the press and end-of-year awards. DBMAN's ability to produce (and to import) ASCII files is crucial here.

This application needs to be improved by providing a better screen environment for data entry and more cross-checking of finish data. We are striving to make the system function in real time so that competitors can get preliminary results as they step off their boats, certainly before the dancing starts at the post-race party. Ideally, we should be able to record data on the water, but I hesitate to use my 1040ST in a potentially wet environment with lots of bouncing and rolling. Radio communications are problematic enough so that we have not implemented radio transfer of results. These efforts would also require extra skilled manpower, which is in short supply.

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H A B A V I E W*Reviewed by Pamela Rice Frank*

Ahhhh, the ease of using a GEM-based program....

I'm finding myself getting spoiled by my ST. And by using HABAVIEW, a GEM-based file management program by -- who else? -- Haba, I'm finally organizing all those lists and other assorted data that time, inclination, and complexities prevented me from doing so in the past.

I've worked with various file and information management systems, but until recently, I had never found one that quite met my needs for the routine filing of various types of things I personally wanted stored. Keying in information at work is a whole different ball game than setting up my own system at home.

Judging from discussions with other computer users, I'm not the only one with an aversion to manuals; needing to constantly refer to one is a bother. Although the 58-page manual that comes with HABAVIEW is well-written, easy to understand, and indexed, I was pleased to find that I could work my way through about 80 per cent of the program without even cracking open the included paperback reference book.

After opening Drive A (with the HABAVIEW Master disk in same) and double-clicking on the application labelled HABAVIEW.PRG, a screen appears complete with the menu bar from which most of the program's features are accessed. Maneuvering the mouse to move the pointer over a menu item name gives you the complete menu within that category. The categories are:

Desk File Column Select Sort Options Print

Some commands can be accessed by pressing the [ALTERNATE] key and a key letter at the same time, but I have found that it's simpler to just stick to the mouse-chosen menu bar selections.

To create a record, choose NEW from the FILE menu. HABAVIEW allows up to 32 fields per record with a maximum field size of 255 characters; maximum record size is 1,000 characters. File capacity is limited by available RAM. In my case, with the 1-meg upgrade, that's 796K. Next begin adding your fields by selecting NEW from the COLUMN menu. This is followed by a dialog box requesting the column name as well as the column type.

HABAVIEW accepts six different types of fields:

Text... accepts all letters, numbers, and symbols

Date... MM/DD/YY

Yes/No: Used for yes or no responses; i.e. surveys

Amount: Accepts numbers and decimal points

Time... HH:MM AM or PM (Military time is automatically converted.)

Alpha... Accepts letters and spaces only

The program defaults to TEXT within the dialog box. Choosing another option is done with the pointer and a click on the left mouse button. It's important to remember that once you have added records to your file, that file CANNOT be changed. Prior to that, changes are made by first clicking on the box in the top row of the window that contains the field's name, which highlights that box. Next select CHANGE from the menu column and a dialog box will appear containing the field's present information which can be edited by pressing the [BACKSPACE] key to delete information or placing the cursor (by use of the right- or left-arrow keys) to the point within the field title where letters need to be INSERTED or DELETED. Once records have been added, only the field's name can be changed and the dialog box that appears reflects this limitation. (At this point, the only way to change a field type is to create a new field reflecting the proper field type, key in the duplicate information, and then delete the old field. Be sure to do this in that order since deleting a field also deletes all the information that was entered into that field.) To change the record, click on the OK box once your editing is done. Click CANCEL to leave things the way they already are.

The above-mentioned field creation steps are performed while the program is in the LIST mode. These fields can be rearranged and resized by simply moving them around on the screen. However, because I've found it simpler to first enter a few records (done from the FORM layout) before I do this realignment, I'll skip to that next.

To enter information, choose the FORM layout from the OPTIONS menu, which will highlight in black, and then click on same. At this point you will see a vertical stack of oblong boxes just waiting to be filled with information. Each rectangle should display the field name on the left and a series of broken lines on the right. The cursor, represented by a short vertical line, will be in the uppermost box.

Some of you may find at this point, as I initially did, a series of vertical unlabeled boxes. Gerry "Moose" Humphries in technical support was super (and patient) in helping me correct this problem which is caused by desk accessories that reside in memory locations that GEM doesn't always return the correct location of. In other words, if you first booted your system disk and that disk contains all kinds of nifty calculators, puzzles, and other assorted goodies, chances are a couple of them are in conflict with HABAVIEW. Determining which ones simply takes a little trial-and-error. Although HABAVIEW is copy-protected, I was able to make a bootable backup using either ST COPY or PROCOPY. I then added those accessories necessary for my Logikron clock card, the control panel, and the install printer panel. This means that every time I want to use HABAVIEW, I'm forced to do

the cold-start boot process using my backup HABAVIEW program disk to insure that I retain all my form layout labels -- a minor inconvenience in my opinion.

Now that I had my labels, I was ready to begin my data entry. As a convenience, the first character of each field is automatically capitalized. Once you've keyed in the necessary field information, which will scroll automatically should you enter more characters than the initial space allows, simply press [RETURN] to accept the data and proceed to the next field. Pressing [RETURN] or [TAB] allows you to skip forward (and over) the fields. The entire record can be accepted by clicking on the ACCEPT button displayed on the lower portion of the screen or by pressing [RETURN] from the last field. Pressing [TAB] while in the last field will return you to the first field.

Data entry is vastly simplified by rearranging the form-window displays so that they all appear within one screen. This is accomplished by positioning the pointer on the field name and then dragging it to the desired position. Likewise, the windows are sized by placing the pointer on the right portion of the grid and dragging it to the right to increase the size or to the left to decrease the viewed character space.

It's important to keep in mind that HABAVIEW prints mailing labels from this FORM mode. Labels are printed 30 characters across and include the first five lines displayed within this mode. By arranging your form with this in mind, you'll save some time later on. I size my windows to allow for the 30 characters allotted. This way I know in advance which address lines will need to include abbreviations. Another convenience is knowing that I can organize my form to print first name first and not affect the layout of the LIST mode display within those files where I have used separate first and last name fields to allow for alphabetical sorts.

Once I have entered a representative sampling of the information I'll have stored within a particular HABAVIEW file, I return to the LIST mode and then size and organize that display. While in this mode, the window's rows and columns are marked by a grid. This can be turned off by selecting GRID ON/OFF from the OPTIONS menu, but I personally find it makes it easier for me to follow and arrange the display with it on. Sizing is again a snap. Fields can be moved by simply clicking on the field name and then dragging it to the desired position. Field sizing is done by dragging the right-hand grid line either right or left. By having a sampling of information displayed, I know which areas need more or less display space.

Printing this list display is limited by HABAVIEW to either the first 80 or 132 columns. Knowing I can later write the file to disk, (HABAVIEW.TXT in ASCII or HABAVIEW.DOC if "to HabaWriter" is chosen. Be careful here because to change these names you must QUIT HABAVIEW and use the SHOW INFO selection from the FILE menu within the Desktop.), I experiment while I have just a few records entered to determine which ones I want to be able

to print directly from HABAVIEW. (I have a Panasonic KX-P1092 printer. I preset my printer for condensed type and then choose the 132-column print option before sending the file TO PRINTER.)

HABAVIEW also allows the [ALTERNATE] [HELP] "snapshot" to be made of the screen should you wish which is why I included the Install printer panel as one of my desk accessories.

The only annoyance I have found in using this program is that when I occasionally decide to add another field to a record it necessitates again rearranging my FORM layout since everything is returned to its original vertical position. This is pointed out in the manual and is simply the nature of the beast, I guess.

Once a number of records has been established, corrections can later be made within the FORM mode. For lengthy records, you can either do a search and hide all other information or place the record you wish to correct in the uppermost display line while within the LIST mode. When you then go to the FORM mode, this record will be the one displayed. To edit a single line, you can either skip ahead by TABbing to that location or by placing the pointer on the desired field name and clicking.

HABAVIEW allows a variety of record sorts. These can be done by field or any combination of fields. For example, I have a friend who is generous enough to allow me to borrow selections from his VCR tape library. He numbers his tapes using an alphanumeric numbering system. Once I had entered the listing of the 500+ movies he has on hand, I first wanted to display and then print this information by tape number. By clicking on the NUMBER field and choosing SINGLE COLUMN from the SORT menu, I then selected LOW TO HIGH from the SORT menu. A few seconds later my LISTING was rearranged to display the tape information beginning with #A1 and so on. Next, wanting an alphabetical listing by title, I clicked on the TITLE field and repeated the same steps.

HABAVIEW also allows progressive sorts for when you want to narrow your data down to the exact information you need. The program also allows criteria selection from one or more fields. By clicking on the desired field and then choosing BY EXAMPLE from the SELECT menu, a dialog box then lets you choose the condition you wish to use: equals to (=), not equals to (<>), less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), or contains (*). Clicking on the OK box will cause HABAVIEW to display those items matching the criteria you have selected.

Once your search is done, you can then complete another search to further narrow your information or choose SHOW ALL from COLUMN menu bar to again display all your information. (If you have made any changes that necessitate SAVEing your HABAVIEW file before exiting, be sure to SHOW ALL before completing your SAVE.)

Each HABAVIEW file is SAVED using an 8-character

file name with a .FLR extender. This file name can be displayed at the top of your LIST grid or you can rename the display header by choosing NAME VIEW from the FILE menu. This title can be up to 40 characters in length.

One final note, Mr. Humphries informed me that the first release of HABAVIEW contained a bug which prevented SAVES under certain byte-configuration conditions. This has since been corrected. Although very few of the bug-included versions were marketed, I found that I had one. Because the corrected version displays the same "HABAVIEW, Version 1.0" info as the earlier one, the only way to check to determine which copy you have is to open the disk from the desktop and view the information as text. The version with the bug will display 85,705 bytes. The corrected version is 85,736. Should you also find you have the early version (which I used for weeks with no problems), send your original program disk and \$7.50 to the address listed below. Be sure to mark "Attn. Technical Support" on the envelope.

At this point, I have found that HABAVIEW meets all my needs. It's simple to use. Any problems I have had with the program have been as a result of my own errors. For example, I have only had my ST since July. After years of working with ATARIWRITER, I figured I could simply remove one disk and SAVE my file on another as a backup. Late one night, after OPENING a file, I removed the disk the file was on and inserted a blank formatted disk in Drive B. About an hour later, when I tried to

SAVE the additions I had made to that file, I kept getting an OPEN error. As exhaustion-induced stupidity and impatience would have it, after a couple attempts I simply turned off the computer figuring I'd try again the next day when I wasn't too tired to figure out whether the problem was me, the computer, or the program. I went to the porch to retrieve the morning paper to read before I went to bed when my error occurred to me. That error cost me an hour.

The first time I used HABAVIEW, I created a magazine Index. Once I had established the format, I decided to create a template for use as a newsletter Index, choose the NAME VIEW option, changed the name to NEWSLETR.FLR, and proceeded to delete all the information I had entered while in, what I thought was, magazine-mode. Had I bothered to OPEN a FILE to check the disk contents and then CANCELED that selection, I would have determined that MAGAZINE.FLR was still the file I was working with. Trial-and-error does have its consequences.

I have since read the manual as well as refer to it upon occasion. So far, this program ranks third in total personal workout; right behind STWRITER and MichTron CARDS. While lacking in the relational versatility needed for some business usage, HABAVIEW meets and exceeds most demands of the home user.

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ST - POOL 1.3*Reviewed by Joe Kuffner*

The kids are in bed, you're "better" half away doing something creative. What better time to give your old "roomie" a call, "How about a quick game of pool down at the local pool parlor?", as visions of ice-cold beer, a smoke filled room and that distinctive "CRACK" echoing throughout the room, dance through your head. The response arrives, "Sorry, I'd love to, but, I promised to help with my daughter's wedding preparations." Thud!! As you get up off of the floor, and place the receiver back into its cradle, you begin to think of how things could have been...

Well, having been unsuccessful at getting a game of pool going, you remember that you can always turn to your computer. How about a pool game for the ST? Sure enough, there is a new release from Shelbourne Software Systems, Inc., from Philadelphia, Pa.: ST-POOL. Snapping open the book-like packaging you find the usual instruction manual, game disk and warranty card. The documentation is clear and concise with respect to the actual mechanics of playing ST-Pool on your ST. However, please note that there is no mention of what Pool is, or how and why to play! I'm sure that most of the prospective buyers of this program would already know what pool is, so, I won't dwell on this. Everything you need to know is laid out with detailed pictures and logical presentation of uses of the mouse and mouse buttons as well as the drop-down menus. I give the documentation an A+.

On to the game of ST-Pool. Since there are no programmed rules of the game, you can establish your own to fit the kind of pool games you want to play. You are presented with an over view of a standard 6 pocket table with a bead scoring rack, a ball retrieval rack, a rack, a cue, 15 beautifully colored object balls (same colors that you would expect to see at the pool hall), with exceptionally clear detail (numbers on the balls [well specks, anyway], white spot on 8-ball, etc). Also provided is a face view of the cue ball, with cross-hairs which can be manipulated to change the "English" when striking the cue ball. The rack referred to above, can be changed to set up the balls in any order you would like (or any number of balls). You can also establish your own game board, with or without a rack (i.e. to play around-the clock, or any other unorthodox game), and save it to disk for retrieval at your convenience. So far, an excellent looking game.

Having established all of the visuals, let's get on with a game. Time to break. The cue is manipulated into the proper direction by holding the left mouse button and moving the mouse or by simple shift/alt/control key command. Having established the proper direction to push the cue, all you have to do now is put the tip of the cue onto your cue ball, hold the left mouse (the cue turns

orange), pull the mouse straight back to the desired striking distance, then push the mouse straight forward (still holding the mouse button down). Your cue will be following the path of the mouse, and upon the cue connecting with the cue ball, it will careen into the others, hopefully in the direction you wanted. This may sound a little confusing, but, as the instruction manual explains, it is all quite natural and you'll get the hang of it in no time at all. I assure you that this is, in fact, quite natural. However, did I mention the word "straight"? I see that I did. I can't emphasize this word enough. You see, if you deviate from the straight, either on your backstroke or your fore stroke, you will be changing the angle that your cue will address the cue ball. Enter a new feature, found only in version 1.3 (and later): the ability to "lock" your desired cue stroke direction. Having aimed, chosen the ball to strike, all you need to do is hold down the right shift key and move the mouse to strike. I've noticed a substantial improvement in my game with the use of this feature. Yet another feature added in the new version of ST-Pool, is the ability to "cheat" (a pull-down menu option), which will show you the path the ball will follow after you strike it. This feature serves as an excellent handicapping tool, when your friends join you in a game, to allow them a slight "edge".

As far as other game mechanics, the balls bounce off the rails well and careen off each other in a realistic manner. One minor unrealistic feature is the strength with which you can hit the balls. There appears to be no loss of kinetic energy during impact with other balls, which seems to give the balls a little too much speed. The balls, however, roll around with nice effect on the surface of the table. A nice touch. The pockets are large enough, too, that close shots "sink". That helps in speeding up the game a bit.

Other nice programming touches are the game save feature (for those straight pool marathons), table color changes, and an attractive layout of the playing surface. Additional features of the new revision are the ability to run other accessories during the game (a clock for instance) and, with the use of an "invisible" sizing block, shape the ST-Pool window. This program looks great and the programmer has paid particular attention to details.

I think what we have here is a very slick, and potentially addicting program for pool lovers of all ages. The game plays smoothly, and is very easy to learn and like the real game that it simulates...practice makes perfect. And no need to get down to the pool hall!

(Continued on page 51)

S T A R G L I D E R

Reviewed by Roger Abram

In Appendix B of the 520ST Owners Manual, you can find instructions on how to clean your mouse. It's all pretty simple...take out the bottom panel, wipe off the ball with a soft, dry cloth, and gently blow into the mouse opening. You should follow these few steps before every session of StarGlider because your mouse is going to get a lot of action! This game is fast!

StarGlider is the latest release from Firebird and the first time you embark in the Airborne Ground Attack Vehicle (AGAV), you'll find yourself alone on the planet Novenia. Alone, that is, except for about a hundred enemy tanks, mines, neutron missiles, drones, stompers, and transport vehicles. And they all have one thing in common: they're out to get you. They fire at you from the ground, from the air, and there's even proximity mines floating in space that you never really see until it's too late. Your initial shakedown flight of the AGAV will undoubtedly end with the program warning you that there's a "Damage Alert" (in digitized speech), and then it'll be all over..."Shield Depleted."

So you take it out a few more times and you're met with the same results. Time to look in the novella that accompanied the program and also glance in the play guide for a hint or two as to what you're supposed to be doing. Hmm, something about docking in rotating space station repair silos. Let's go flying.

You picked the right object to rendezvous with and you've hit the jackpot...the AGAV is safely inside the silo and you've interfaced with the silo's computer. Information on the enemy's weaponry is flashed before you and now you know what you're up against. Your craft is repaired, shields back to full power, and you're now equipped with another missile. Time to face the real world. Only one problem...the energy level in the Plasma Drive Unit is still low.

As you can see, the documentation in StarGlider doesn't ever come right out and say how you're supposed to survive in this dark, menacing world. However, the novella and play guide do provide clues on things like docking with silos and the secret to recharging your plasma drive. It's up to you to find out the correct procedures. This initial uncertainty gives the game some depth at first, but you soon realize that StarGlider is basically a shoot-em-up arcade game.

Although objects only appear in three-dimensional outline, the use of graphics is excellent. As you fly over the planet you notice tanks skimming over the terrain, neutron missiles darting towards you, fighters streaking past you, and stompers plodding along. And it's all happening at once. The number of objects to keep track of is boggling, and impressive. Bank to the left or bank to the right, it's all the same: the enemy

is on the move everywhere!

The program also makes good use of the ST's sound capabilities. A digitized theme song greets you each time you play the game, complete with lyrics. Verbal alerts warn you of damage and the need to recharge your power supply. Though sometimes unintelligible (what are they singing in the theme song?), it is an interesting feature.

The sixty-four page novella sets the atmosphere for your exploits by outlining the events that led to the current situation on Novenia. It is in the story where you'll learn that Hermann Kruud is in StarGlider One and it is he and his ship who must be destroyed. The final sections of the story are important because you're provided with clues, and actual battle situations, to help accomplish your mission.

StarGlider provides an out of the cockpit perspective with various gauges on the instrument panel to help keep you alive. A local area scanner, if you have time to look at it, detects objects within the AGAV's range. There are gauges to warn you that your energy level, force field, and laser cells are getting low. There's also information concerning your velocity, heading, sector location, number of missiles on board, and more.

This isn't a game for everyone. If you've been waiting for a worthy arcade game to come along for the ST, then wait no more. The one problem, however, is the mouse. Being able to play this game with a joystick would be a definite plus because responses could be quicker and more accurate. You can define keys on the keyboard to perform the functions of the mouse, but there just isn't anything that can take the place of a good joystick when you're out to save the world.

ST-POOL 1.3 (Continued from page 50)

Customer support is available from Shelbourne Software Systems, Inc. and appears excellent. Upgrades for those of you who have earlier versions of St-Pool are available for only \$1, to cover the cost of postage and handling.

With ST-Pool version 1.3 (or later), I recommend this program to anybody who enjoys a good game of pool. I am looking forward to Shelbourne's newest product: ST-SHUFFLE BOARD (demonstrated at AtariFest 86). It looks like fun, too!

P C B O A R D D E S I G N E R*Reviewed by Don Krentz*

Well here we have a program that techies should be drooling over. Techies with money! The PC BOARD DESIGNER is impressively packaged in a 7 1/2 x 9 inch three-ring binder in a box (a la IBM). A single diskette contains the PCBDES1.PRG(65K) and 200K of support files and examples of circuits to get you going. Unfortunately the disk is copy protected so a complete working copy cannot be made using TOS; the master disk must be in drive A to initialize the program. The documentation is extensive and appears very complete, although my second copy of the manual is missing most of the library definitions. The pages are single sided so you get a thick binder. Nice for making notes on facing blank pages.

FEATURES

The big features of PC BOARD DESIGNER are its ability to "autoroute" and "rubberband" the components. The program can only be used with a monochrome monitor, a necessary evil that allows a very detailed working screen. Using PC BOARD DESIGNER, you can design single sided, double sided plated through, and double sided not plated through the holeboards. And if you are really adventurous, you might even try multilayer boards, but registration could turn out to be a nightmare. The maximum board size is currently 6.3 inches by 4.4 inches and the minimum is 1.15 inches by 1.15 inches. The reason I say "currently" is that since I've had the PC BOARD DESIGNER program, I've received an update changing the board dimensions to this size. I suspect more changes may be in the offing as this current size limits the usefulness of this product on the professional market.

PC BOARD DESIGNER is GEM-based and, with a plethora of menus available, very "user friendly" although you must become familiar with the protocol of the program to achieve this state. Desk accessories are disabled by the program, a nice touch which solves any "conflict" problems, but a pain to those who must have their favorite accessories running all the time.

Auto Routing of your board is probably my favorite feature. Simply layout the components on the screen, load the appropriate connections list, and watch it go. Now you know nothing ever works the first time so you must bring into play another feature of the PC BOARD DESIGNER. Changing the layout of your components manually to achieve optimum routing. You can even force routing in a preferred direction (X or Y), and routing of your traces can be in 45 or 90 degrees using two widths.

Output to a printer is, of course, a feature essential to this program. The whole object is to produce camera-ready hard copy so that positives can be

made from which the board you designed can be etched. The PC BOARD DESIGNER does a nice job of this task. The first copy I had would not print out on my "100%" Epson compatible Panasonic 1091. In fact, when I contacted ABACUS about this problem they were not familiar with the 1091. However, the software update I received works just fine. Printer outputs are top and bottom of board, component plan silkscreen, connection list, component list, and a pinhole output for drilling.

USING THE PROGRAM

Once the program is loaded, you have a screen divided into a work area (most of the screen), a list area (right side), and a command strip at the bottom. To produce a board you must generate three files; a component library file, a circuit file, and a board file. The evolution of a circuit board starts with a schematic diagram, a board diagram and a components list. Then, to tie all these together, you need a connections list.

PC BOARD DESIGNER allows you to design all necessary components in a separate program called DEF.PRG. Here you work on a screen divided into a grid of 50 thousands of an inch centers. You can draw to scale all necessary components and connectors including pin numbering. Once completed, these are saved in a .LIB file.

OK, we're now ready to start making our board. First, make up your connections list. Second, enter both the connections list and components list using an input editor. This is a tedious task which is done automatically on some CAD programs for the IBM. Perhaps a companion schematic program will be forthcoming in the near future ... but there is a plus in the next step, positioning the components. You can select components and move them any where on the board, including rotation, all with "rubber band" connections. That is where the components stay connected while you move them around to find the best position for routing the traces. Once you have a position that looks good, try "autorouting" and check the results. Repeat this a few times. It's really interesting to see the effect of positioning on the circuit routing. Of course, you have manual control to cleanup some of the quirks of "autorouting". About now you could size the circuitboard. You may have to do this a number of times during the component positioning to obtain the optimum size.

The connections list can be altered to aid the "autorouter". When the connections list is first set up, you must assign "attributes" to each point-to-point connection. These are: 45 or 90 degrees, to a trace or to a pad, wide or narrow etc. After viewing what the "autorouter" has produced, you may want to change the

attributes to streamline the routing. You may also want to place blockades or reserve areas for special purposes. No problem. In fact, once you have the data necessary to produce your board, its a lot of fun trying different sizes, routing etc.

CONSTRAINTS

The first and most obvious is the board size. For the hobbyist it is probably adequate, but as a "professional computer-aided design" package, it falls short of the needs of the electronics industry. And while it may be suitable for the hobbyist, the price places it out of the reach of most.

A second constraint is the lack of a schematic drawing program which would automatically generate a connections list.

The documentation, while quite good in content, lacks the gloss and flash you would expect in a package costing this much.

The autorouter sometimes goes into never-never land, but fortunately it can be recovered by ESC-aping.

And my final observation is that not all connectors or components are registered on centers divisible by 50 thousand. The majority, however, are so this should not present too much of a problem.

CONCLUSION

This article is only an overview of a very powerful CAD program. Please don't be misled by the apparent ease with which you can set up a PC Board. The PC BOARD DESIGNER is not for the novice. It is like all good computer programs — a useful tool in the hands of the right person. ABACUS states that the goal of PC BOARD DESIGNER is "To save time, effort and money required to design a working printed circuit board". I think it will.

Suggested List Price: \$395 US, \$599 CAN.

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Pascal and Modula-2 source code are nearly identical. Modula-2 should be thought of as an enhanced superset of Pascal. Professor Niklaus Wirth (the creator of Pascal) designed Modula-2 to replace Pascal.

Added features of Modula-2 not found in Pascal

- CASE has an ELSE and may contain subranges
- Programs may be broken up into Modules for separate compilation
- Machine level interface Bit-wise operators Direct port and Memory access Absolute addressing Interrupt structure
- Dynamic strings that may be any size
- Multi-tasking is supported
- Procedure variables
- Module version control
- Programmer definable scope of objects
- Open array parameters (VAR r ARRAY OF REALS.)
- Elegant type transfer functions

Ramdisk Benchmarks (secs)	Compile	Link	Execute	Optimized Size
Sieve of Eratosthenes	6.2	4.3	3.5	2600 bytes
Float	6.4	4.8	8.3	4844 bytes
Calc	5.5	4.2	3.3	2878 bytes
Null program	5.1	3.2	—	2370 bytes

```

MODULE Sieve;
CONST
  Size = 8190;
  FlagRange = [0..Size];
  FlagSet = SET OF FlagRange;
  Flags: FlagSet;
  Prime: k, Count, Iter, CARDINAL;
BEGIN
  ('SS-SR-SA-')
  FOR Iter := 1 TO 10 DO
    Count := 0;
    Flags := FlagSet(); (* empty set *)
    FOR i := 0 TO Size DO
      IF (i IN Flags) THEN
        Prime := (i * 2) - 3; k := i * Prime;
        WHILE k < Size DO
          INCL(Flags, k);
          k := k + Prime;
        END;
        Count := Count + 1;
      END;
    END;
  END;
END Sieve

```

```

MODULE Float;
FROM MathLib0 IMPORT sin, ln, exp, sqrt, arctan;
VAR x, y: REAL; i: CARDINAL;
BEGIN ('ST-SA-SS-')
  x := 10;
  FOR i := 1 TO 1000 DO
    y := sin(x); y := ln(x); y := exp(x);
    y := sqrt(x); y := arctan(x);
    x := x * 0.01;
  END;
END float;

```

```

MODULE calc;
VAR a, b, c: REAL; n, i: CARDINAL;
BEGIN ('ST-SA-SS-')
  n := 5000;
  a := 2.71828; b := 3.14159; c := 10;
  FOR i := 1 TO n DO
    c := c * a; c := c * b; c := c * c;
  END;
END calc;

```

Product History

The TDI Modula-2 compiler has been running on the Pinnacle supermicro (Aug 84), Amiga (Jan '86) and will soon appear on the Macintosh and UNIX in the 4th Qtr. '86.

Regular Version \$79.95 Developer's Version \$149.95 Commercial Version \$299.95

The regular version contains all the features listed above. The developer's version supplies an extra diskette containing a symbol file decoder — link and load file disassemblers — a source file cross referencer — symbolic debugger — high level Windows library Module — Ramdisk and Print Spooler source files — Resource Compiler. The commercial version contains all of the Atan module source files.

Other Modula-2 Products

Kermit	— Contains full source plus \$15 connect time to Compuserve	\$29.95
Examples	— Many Modula-2 example programs to show advanced programming techniques	\$24.95
GRID	— Sophisticated multi-key file access method with over 30 procedures to access variable length records	\$49.95

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Additional Comments

Reviewed by Bill Moes

In the November Issue of *Current Notes*, I took a look at "DEGAS Elite", beta version. While the changes made for the final release were minor, there are a couple of necessary notes.

Yes, the documentation does state that four work screens should be available on a 520 ST. No, they aren't all there. At least not yet.

The 520 ST users will find two screens ready after an "Elite" load which includes the AUTO (GDOS program) folder. Three screens will be available if "Elite" is loaded directly without first doing a cold-start or reset for that AUTO (GDOS) folder.

Marty Herzog, a Batteries Included spokesman, blames this on a "slight problem" in Atari's current GDOS release and adds that the four screens may be available in the future. The one-meg machines should still provide the expected eight screens.

GDOS does provide proportional spacing of the non-system fonts. Having the third screen will cost 520 users this feature, offering only the charming

non-proportional system font. This system font may still be presented in one of six sizes and any combination of five style settings.

In other areas of interest: the slide show with "Elite" supports the color cycle animation you include in your graphics. It will display the screens you've saved, whether they're in standard or compressed format. You may even choose to include block files in the slide show. And it's possible to have the file name displayed with the picture. Nice touches, all.

Also, as part of the debut, *Analog* and BI are sponsoring a clip-art contest with around \$4000 worth of prizes for the best entries. An entry form for this contest which ends in May 1987 is included in the package.

I've learned that Tom Hudson, the author of "DEGAS Elite", may include expanded screens to offer full page printing in future revisions. This would certainly be helpful. Other enhancements are also being considered. Offer your ideas when you send in that registration card.

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HOME ACCOUNTANT & HABACHECK*Reviewed by Roger Abram*

HOME ACCOUNTANT by Haba Systems, Inc. is a slightly improved version of their HABACHECK program (also known as CHECK MINDER). Where HABACHECK is a fine program to simply manage your checkbook, the new title and packaging of HOME ACCOUNTANT could lead buyers into believing that this "new" program is an all-encompassing package to track personal accounts and assets. It isn't.

HABACHECK (HC) is the base from which HOME ACCOUNTANT (HA) was built and they are still so similar that the review below pertains to both programs. Their slight differences will be pointed out.

Both programs do an excellent job of maintaining your checkbook. They achieve this by smoothly interfacing with GEM and by presenting you with a visually attractive display with the bottom half of your monitor in the form of a check and the top half in the form of your check register.

Checks, deposits, and drafts are entered by first selecting the appropriate icon with the mouse and filling in the fields. On a check, these fields are Check Number, Date, Amount, Pay To, Memo, For:, and a check-off box if the item is later to be reported as a tax deduction. A check number can automatically be incremented from the previous check by pressing the "=" key. The date from the previous check can also be brought forward by pressing the "=" key again. When you enter the dollar amount, the programs put the amount in text form on the line below. For example, if you enter \$5.63 in the amount field, "Five dollars and sixty-three cents" will appear on the line below the Payee. This is a useful feature if you later want either program to print the checks for you.

Though HABACHECK cannot track expenses versus budget, it will calculate how much money you spend on various expense categories. You are allowed 80 expense categories and 16 income categories with HABACHECK. When entering information on a check or deposit slip, you simply put the name of an income/expense category in the "For:" field (i.e. Food, Gas, 520ST). If the category is not one that you have already established, the program will ask if you want to add it to the list.

Like HABACHECK, you can define income/expense categories with HOME ACCOUNTANT. However, HA goes one step further by letting you also establish monthly budgets for each category. If you like, the program can warn you immediately when entering checks if you will go over budget. You can also toggle the warning box off if it becomes too bothersome. The ability to create budgets is the main difference between the two programs.

The [F3] function key is used to enter information into the programs and the items appear above in the check register in green (deposits) or red (expenses). The

register only shows you five items at a time, but you can scroll through the entries by clicking on the appropriate up/down arrow icons. The scrolling is extremely fast and you can also sort the register by check number, date, payee, category, or cleared. I have about 200 entries in my file at this time and the sorting is instantaneous.

My only gripe with the method of entering information onto a check is that to advance from field to field you have to either press the [Tab] key or point to the next field with the mouse and click it on. Whatever happened to using the Return key to advance from field to field? Perhaps future versions will take this into consideration.

Where both programs really shine is in their ability to easily reconcile your checkbook with your bank statement. What I first do is sort the register in date order (bank machine entries float to the top of the register in default mode because they have no check number) and then scroll through the register comparing it to my statement. The far right column in the register is a box where you click on a check mark if the item has cleared. When you've put check marks in all of the appropriate boxes, you click on the Reconcile icon, enter the ending balance from your bank statement, and keep your fingers crossed that you've balanced. If you're off, the programs can make an adjusting entry to bring your account into balance.

Both programs come with several built-in reports including Income by Category, Expenses by Category, Income & Expense Statement, Average Cash Flow, Account Activity, Tax Preparation List, and Transaction Summary. In addition, HOME ACCOUNTANT comes with a report to compare budgeted items with expenses. The reports appear to work fine and the results can be sent to the printer, screen, or disk file. Another option is that you can have your checks printed by the programs themselves. Different check sizes are available for either personal or business checks.

HA & HC also have the ability to remind you when payments are due each month and they can write the check/draft for you. I have an insurance policy that debits the monthly payment directly from my checking account on the 15th of each month. I always had an extremely hard time remembering to deduct this amount from my checkbook. Now I have no excuses.

With HOME ACCOUNTANT, you can also set up separate files to track your credit card accounts. These can be established to either track your available credit or the amount you owe the bank. In any event, each card has to be maintained as a separate file and cannot relate in any way with your checkbook account. If you are entering checks and make a payment to VISA, you have to close the

(Continued on Page 58)

WORD WRITER ST*Reviewed by Milt Creighton*

WORD WRITER ST, as its name implies, is a new word processor from Timeworks for the 520 and 1040ST. It can be used as a stand-alone program or as a part of an integrated package with DATA MANAGER ST (a data base) and SWIFTCALC (a spreadsheet) and since it is not copy protected, it can be run from a hard disk. It comes with a 90 day money back guarantee and a toll free customer technical support help line. WORD WRITER ST retails at \$79.95 as does both DATA MANAGER ST and SWIFTCALC.

WORD WRITER ST cannot claim the distinction of being a second generation word processor for the ST line, (if the ability to integrate text and graphics within the same document defines a second generation product) but it may well be the ultimate within the first generation. It has a host of useful and powerful capabilities and very few limitations. In fact, its many professional features surpass even the few second generation word processors now available. We may have to wait for the much-heralded PAPERCLIP ELITE for a true competitor (MICROSOFT notwithstanding) and, even then, PAPERCLIP ELITE will have to live up to its advance billing.

It may be more helpful to list what WORD WRITER ST will not do before getting into a listing of its many features. First, as already stated, it does not have the capability to integrate graphics within its text files. In addition, WORD WRITER ST has no multiple column capability and, at present, it will not work with serial printers. It has no internal macro capability and, because the program makes use of both the <alternate> key and most of the function keys, commercially available macro desktop accessories such as ALT and ST KEY will not work at all or will have very limited application with WORD WRITER ST. There is a solution, however. More about that later. WORD WRITER ST will accept 1STWORD text files, but it has problems with STWRITER files, even those printed to disk which are ostensibly in ASCII format. It is possible to use those files, but quite a lot of reformatting is required. Finally, WORD WRITER ST has no mail merge or form letter capability, though it is possible those features may be available in one of the other integrated programs given earlier.

On the other hand, it's difficult to encapsulate the many features of WORD WRITER ST in as few words. It is a truly professional word processing program. It includes an integrated outline processor and a full-featured spelling checker with a 90,000 word dictionary. WORD WRITER ST is GEM-based and can display on-screen many of the type styles available on most modern dot matrix printers. As in most other "what you see is what you get" word processors, it will not display certain large or small sized characters such as enlarged or condensed text on-screen, although it is possible to incorporate those styles in your text by means of embedded commands.

One of the most pleasant surprises I had in learning

WORD WRITER ST was the manual. How many times in the past have you purchased a program only to find the manual was largely advertising hype or so poorly conceived and written it was easier to learn the program without the manual? I have found this to be particularly true of word processors for the ST. Not this time though. The manual is 140 professionally printed pages in a handsome three-ring binder. That's not even the good news. The manual is so well written that even someone almost completely unfamiliar with the ST or TOS will have little difficulty learning the program. In fact, it's deceptive because the learning is so effortless it's possible to lose sight of the word processing power you command. For the advanced student of word processing, it's equally painless because the program implements GEM very well and you're immediately familiar with many of the program's features. A little digging in the manual will uncover most of the rest pretty quickly.

WORD WRITER ST comes equipped with 35 printer drivers, one of the advantages of mature software. It also has a printer driver modification program so you can create your own if you happen to be like me and insist on buying printers no one else has ever heard of. The modification program is straightforward and very well explained in the manual, as is almost everything. Be warned, however, that serial printers are not currently supported by WORD WRITER ST and that, whatever printer you have, you'll have to properly set the printer port and the sheet/fanfold paper setting in the TOS printer installation desk accessory.

Once the program is booted and you have selected a text file, the WORD WRITER ST basic screen displays the current document window which overlays a handy "quick key" and function key legend. The document window size can, of course, be adjusted to display or cover the legend at the user's option. The drop-down menus in the menu bar at the top of the screen (in addition to "Desk") are labeled "File", "Options", "Block", "Print", "Text", "Words", "Outliner", and "Help".

The "File" menu, in addition to all the saving, tidying, and renaming options, also includes the option of saving your text file as an ASCII file (in case you want to send it over a telecommunications device such as a modem and then use it with another word processor at the far end). This review, for example, is being written using WORD WRITER ST. It will be placed on a disk in ASCII format and mailed to the ST editor of CURRENT NOTES who will then reformat it (correctly I hope) into double-column format with STWRITER. The other unusual option in this menu is a status command which, when selected, will calculate and display the number of pages, lines, words, and characters in the current document. It also calculates the amount of free RAM remaining. Unfortunately, saving a file returns the cursor to the beginning of the document. That can be annoying when you

are composing a long document and want to save it every so often—just in case. I would have liked to see an option which would return the cursor to its previous position in the text.

The "Options" menu has four items on it. Two of them control fairly standard "search", and "search and replace" functions. One of the other items is a "format" function whereby you can reformat a paragraph which has become untidy with dangling participles sticking out past the right margin. Nothing out of the ordinary here, except for an additional option to reformat an entire document with one click of the mouse. Now that's one feature I've dearly wished for with other word processors! The final item on this menu is an option which will delete text from the cursor position to the end of the document, another very handy tool.

The next menu down is entitled "Block". It has to do with normal block operations such as setting markers, cutting and pasting, and moving blocks of text around. Nothing remarkable but complete.

The "Print" menu permits the selection of a printer driver for printing out text files which are either currently in RAM or are on disk. (Be sure to rename your printer driver file PRINTER.CFG to trigger the default selector in the program or you will have to select the proper printer driver every time you run WORD WRITER ST.) The other items on the menu include a page layout form and headers and footers. The headers and footers are both single line but are broken up into three possible segments which can be placed left, right, or center on the page. Both the headers and footers can be alternated left and right on succeeding pages (usually called book format) by choosing that option in the secondary printout specifications menu. Normally, I would prefer a multiple line header and footer option, but I can live with this arrangement with only a few squawks. The print option permits printing the current document or, at your option, a file from disk. This option has more consequences than you might think because printing the current document results in WORD WRITER ST writing a file (as large as your document) to disk which is then spooled to the printer, freeing the computer for your use while your document is being printed. There's even a way to mark a block of text so that it will be printed in its entirety on the same page.

The "Text" menu presents right justification, word-wrap, and double-spacing toggles. WORD WRITER ST will display bold, underlined, light, italics, and super and subscript or combinations of those text styles on-screen. The commands for those text-styles as well as some formatting commands are executed by "quick-keys" which use the <alternate>, <control>, or function keys. This, of course, is the reason that programs such as ALT or ST KEY which would otherwise provide macro capability either will not work at all or will have reduced usefulness in WORD WRITER ST. One solution, if you really want macro capability, is to use THUNDER! from Batteries Included. In the desk accessory mode, it is possible to create and use macros using THUNDER!'s "learn"

dictionary.

Cursor movement is handled very well. In addition to the familiar scroll bars, the cursor can be moved by words, lines, or screens and movement can proceed forward or backward through the file.

It is possible to have up to four files in RAM at once using separate windows and it is possible to cut and paste between them. In addition, it is possible to embed printer commands in your text so that printing features which are not otherwise available in WORD WRITER ST can be implemented in your document. Some examples of why you might want to use this feature include changing between near letter quality and draft modes, use of enlarged and condensed text, or perhaps even switching between pica and elite type.

The integrated spelling checker included in WORD WRITER ST is similar in many respects to THUNDER!, although it does not have THUNDER!'s word expansion capability which would permit macro operation. The WORD WRITER ST spelling checker can be used to check the spelling of a file on disk, a single word, or continuously check your spelling as you type. It's 90,000 word dictionary is the largest available for the ST line (although THUNDER!'s hashed dictionary may actually contain more words). It is not possible, however, to add words to the dictionary (a real deficiency in my view but mitigated by the large size of the dictionary). Otherwise, it appears to have good speed and its operation is very simple.

The integrated outline processor is likewise easy to use but also has a limited number of features. It will automatically enter the proper number or letter for a particular entry based on your selection of the tab position (there are 5 levels). It will allow moving an entry up or down a level and will reformat the remainder, though I had trouble getting the reformat option to work the way I thought it should (the main problem here was my preconception of how the reformat option should operate).

The "HELPI" menu is one of the best I've seen. It is concise and complete. It should be all that is needed for the average user who has read the manual and, when taken together with the quick key legend and the menu bar, should just about obviate the need for the experienced user to even read the manual under most circumstances.

The bottom line: WORD WRITER ST is the finest word processor currently available for the ST line. It is a professionally designed, prepared, and presented package which should meet almost anyone's word processing needs. It is easy to learn, yet powerful enough to perform a variety of complex printing and editing functions. It's few disadvantages such as no internal macro capability, a spelling checker dictionary which cannot be easily expanded (if at all), a lack of double-column capability, and no form letter or mail merge features are not serious compared to the power and simplicity of the overall word processing capabilities of Timeworks' WORD WRITER ST.

HOME ACCOUNTANT (Continued from Page 55)

checkbook file and switch over to the VISA file to update either your available credit or the amount you owe.

HA does not have a running cash account or provisions for savings accounts or assets. I consider all of these essential for any program that is going to try to sell itself as more than just a checkbook program. Sure, you could improvise and create yet another file to handle cash and another to handle savings, but they wouldn't have the ability to link together with the checkbook file and the budget/expense categories to give you the big picture of where your money is coming from, where it's going, and how much you have left.

Both programs are fine checkbook balancing tools and I can only recommend them as such. HOME ACCOUNTANT is actually HABACHECK with minor cosmetic surgery and cannot yet be taken seriously as a program to meet all of your money managing needs.

In phone conversations with several people at Haba, I learned that there is a \$35 upgrade fee from HABACHECK to HOME ACCOUNTANT (ridiculous) and that there is no utility to convert HC files to the HA format. They also plan to market HOME ACCOUNTANT and HABACHECK as two different programs when HA is actually Version 2.0 of HABACHECK.

[Roger Abram is the Membership Records and Computer Services Manager for the American Chiropractic Association in Arlington, Virginia. He has owned Atari computers since 1983.]

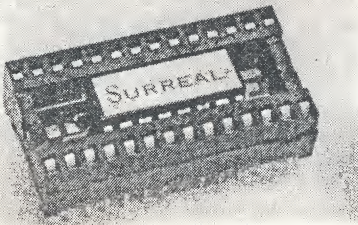
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G A T E W A Y

Dad and Daughter Swing It Open

Reviewed by Bill and Stephanie Moes

An old building's basement door disappears. You step forward. Dinosaurs. Another world. Strangely, there's also a city in the distance. Later you'll meet K'rnth, a sage whose help you'll often seek. Your Uncle's will left a challenge to you. But what? And why?

"Gateway", a science fiction adventure game for the ST from Action Software, offers this view early. Later there'll be battles, robots, the search for a password, efforts to merely exist, and a force field that needs to be ... well, taken care of. And, yes, you guessed it: much more.

With text by Michael A. Banks and graphics by Michael Golding, this is neither a pure text adventure nor a heavily illustrated and text poor graphics game. "Gateway" attempts to combine the strengths of both forms. The story is well-written and the graphics -- clear, direct, and detailed -- are available with a click at important points in the story.

The game's GEM screen is divided into window areas, with sections for the display of text/graphics, typed input, your number of moves and score, and several mouse-based options. The drop-downs list the adventurer's inventory, begin the save/restore, offer a choice of brief or detailed text descriptions, make a hint or three available, and supply other minor playing aids.

"Gateway" runs in either low-res color or high-res monochrome. As you'd expect, the graphics are very similar in each.

The mouse may be used to move in the cardinal directions, select the graphics screen when it's available, or make menu selections. When viewing the graphics, a point-and-click on a picture item will bring forth the examination. We found that to be a very enjoyable and easy way to examine many items quickly.

Most of the game may be played with the keyboard. Using the mouse for movement, we found it inconvenient to have to go the keyboard for a keypress to scroll through a detailed room description. It would have been quite helpful to have a <MORE> position on the screen so you could continue the room's description with a click.

In addition to the two disks, three printed color illustrations are in the "Gateway" package. At certain locations, a careful study of these will disclose items not seen in the monitor's graphics or text descriptions. As you might suspect, these printed pictures are necessary to successfully complete the adventure.

The documentation also includes a 16-page booklet giving game background and playing information along with a paper of ST-specific information. The game had

originally been written for the Macintosh and the booklet makes occasional reference only to that machine.

Many who try adventure games are quickly put off by the difficulty in solving some of the puzzles and the lack of help that's sometimes available. Not so here. Hints are available as part of the program itself. They range in three stages, from the obscure to the explicit. It may, however, take a bit of self-control to stay away from the "tell-me-everything" hints until they are absolutely, positively, completely, and totally necessary.

The point system goes to 1500 for perfection, although you may complete the game with fewer. This high number allows points to be awarded for many actions and results in a feeling of accomplishment and pride even when still facing some major obstacles.

Another positive feature is the ability to change the text and screen background colors to one of ten preset combinations by pressing one of the ST's function keys. This does not affect the graphics colors and you should be able to find one combination to your liking. Monochrome users may switch to either black-on-white or the reverse.

With its careful combination of graphics and text, an interesting story line, on-line hints, and mouse-based room examinations, "Gateway" is a pleasant and challenging adventure. It may not come to be regarded as a classic, but it is a game which will challenge a wide range of adventurers for many enjoyable hours.

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E P S O N L Q - 2 5 0 0 P R I N T E R

-- Lightning Fast --

Reviewed by H. B. Monroe

Most of us have been aware, for some time, that our nine pin dot matrix printers were just not giving us the kind of printing that we wished to have. We want both higher quality and more speed in our printing. We do not like to wait for multiple copies of letters to print out and we are dissatisfied with the quality of nine pin printing. The near future for most of us seems to rest with the 24 pin dot matrix letter quality printer. The appearance of the printing is quite close to Letter quality and it has excellent speed and is inexpensive to operate. The laser and other developing printers, for most of us, at present, are too costly, both to buy and to operate.

One of these machines which provides a quantum leap ahead is the Epson LQ-2500 (suggested retail price is \$1599, but with careful shopping can be had for less than that). The Epson LQ-2500 is a fast, fast machine with a quality of print closely approaching that of the Daisy wheel. With speeds as high as 405 cps in draft mode and as high as 135 cps in letter quality mode the machine is astonishing to behold. Look at the following speeds:

405 cps Draft	(15 cpi)
135 cps Letter Quality	(15 cpi)
324 cps Draft	(12 cpi)
108 cps Letter Quality	(12 cpi)
270 cps Draft	(10 cpi)
90 cps Letter Quality	(10 cpi)

Awesome isn't it. You will have to agree that these figures are almost unbelievable. But wait, there is much more that is great about the LQ-2500. The quality of print from the LQ-2500 is nearly equal to that from a daisy wheel printer, and in my opinion is completely acceptable for business use.

Dip switches are universally disliked, people have a tendency to set them once and leave them alone thus losing some of the benefits of a printer. Realizing this Epson didn't put in any dip switches to set, instead all print modes and printer settings on the LQ-2500 are made with the 20 character Selectype LCD control panel. Up to four memory cells or macros may be created with up to 14 printer functions within each macro, including print quality, font and pitch selection and margin widths. There are five letter quality fonts, Courier, Prestige (used for elite 12 cpi), Roman, Sans Serif and Script. There is one Draft font. Styles include emphasized, underline, superscript, subscript, italics and the optional seven colors.

Pitch selections include pica (10 cpi), proportional, elite (12 cpi), and 15 pitch. In addition to the three pitches and proportional spacing, you can also use condensed and double width to change character size.

The Selectype LCD control panel is quite complex at first glance, but after a bit of study and some practice, the control panel becomes simple to use and handy to have. It is very convenient, you will like it.

At first I had some difficulty in getting the Selectype LCD control panel and the STWRITER Printer driver to cooperate properly. The STWRITER printer driver sends out an initialization command to reset the printer before printing. This, of course, wipes out all of the settings that you have put into the printer through the Selectype LCD Control panel. I finally had to remove the draft and letter quality commands from the STWRITER printer driver to prevent the printer driver from setting the control panel to draft when I wanted Letter Quality print. I now can press a control panel button to cause either to print, but they can no longer be accessed from STWRITER, without use of a special printer command. The correct fix is to remove the initialization command from the printer drivers of the programs that you wish to use.

The dot graphics mode of the LQ-2500 will produce pictures, graphs or almost any other pictorial material that can be devised. Of course all of this is easy with a proper graphics program, but if you have the inclination and the ability you may program it to print extensive color pictures or other graphic applications, such as special type faces, mathematical, scientific or other user defined symbols. The users manual is quite complete (twenty pages) on this subject.

The printer is bi-directional and logic-seeking in both graphics and text.

The push-feed tractor on the LQ-2500 is low in profile, easy to use and the paper is easy to tear off, a real plus. The push-feed will handle continuous paper from four to sixteen inches wide. The friction feed can use single sheets of paper from seven and one quarter to fourteen and one quarter inches wide.

The seven color add on option (user installed) is available for less than \$100.00. In addition to the 8K buffer installed in the LQ-2500 two optional buffer cards are available, one 32K (20 pages) and one 128K (80

pages). Two easily accessed font module sockets are built in to take advantage of new fonts or added features as they are made available. An optical character reader font (\$59.95) is now available.

The LQ-2500 has both Parallel and serial interfaces built-in. The printer has a one year warranty.

The printer is easy to set up for use. The cassette ribbon is easy to install or remove. The printer is pleasing to the eye, but it makes more noise than my Brother M-1509 which is very quiet. In addition to the printing noise there is a cooling fan that runs continuously whenever the printer is turned on. Even so, the sound of the printer is not offensive or excessive. When printing the LQ-2500 goes, "Pst clunk." The pst is from printing the line and the clunk is from changing direction. "Pst clunk, pst clunk", each "pst clunk" is one more line printed in draft. As I say, the printer is lightning fast. This article takes forty four seconds to print in draft and one minute and twenty two seconds to print in letter quality. Most printers are Epson compatible, and occasionally less expensive. But why not have an Epson LQ-2500 - the real thing.

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Any members that have a copy of CURRENT NOTES from the time it was first published to the present issue? If so, please let me know. I would like to contact you about some issues. Alan Dock, 4 Circle Drive, New Bremen, Ohio 45869.

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- #23: INSOF MAGAZINE, JAN. 1986. AY38910, CONVERT.DOC, CTUOLBOX.DAT, DEGAS.REV, GRAPH, INPUT, MIDI.COL, NEWS.COL, OVERVIEW.COL, C.COL, READ.C, READ.PRG, SOUND, SOUND1, WRITE
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- #38: INSOF MAGAZINE, JUNE, 1986. (Comdex news, Jack Tramlet news, OS-9 update, ST Network Club, MIDI report, C source code for grep function, dump DEGAS file to Gemini 10X, address and mailing list program, and more...)
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- #45: ATARI USER GROUPS. Directory of Atari User Groups in various formats.
- #46: GEM Q&A. John Feagans' monthly Question and Answer Bulletin for GEM programmers. FEB - MAY.
- #47: INSOF MAGAZINE, JULY, 1986. Atari news, MIDI report, C source programs for 3-D programs, caser (converts upper to lower case), and the grep function, xmodem term prg, address & mailing list, and megaroids.
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- #52: TINY COLOR SLIDES NO. 5. 3DVIEW, AAFALL, AAFLAG, AATINSECT, ATRPORT2, ALTEN, BOY, BUGSBULL, BULLSEYE, CHAOS, CHROME, FAUCET, FONTS, GIRL, GIRL2, HOUSE, JOKEY, MAP431, SCICOVER, STARTREK, URANUS.
- #53: ATARI ST FORTH-83 MODEL. Written by Laxen & Perry, includes FORTH language, editor, assembler, decompiler and Atari xbios functions.
- #54: MONOCHROME PUZZLE. A labyrinth in which you move forward by completing each of several puzzles.
- #55: LEWIS123 DEMO & ENCRYPT PROGRAM. Lewis 123 is a covalent bond sketcher, the 1st spreadsheet for chemists. (Mono) ENCRYPT is an easy to use method for encrypting your files.(Color or Mono).
- #56: EASY DRAW DEMO DISK. Excludes the ability to SAVE or PRINT to disk.
- #58: VIP PROFESSIONAL DEMO DISK. Includes an adventure tutorial for VIP. Note: SAVE, MOVE, PRINT, INSERT/DELETE ROW/COLUMN are disabled.
- #59: VIP TEMPLATES. 20 VIP templates, some simple, some quite sophisticated: ACPAY, ACREC, BLACKBK, CKBKBL, DISPURSE, FEDTAX85, LEDGER, LOTUSINV, MAGEE, MENU,

- MISTOX, PAYROLL, SPI, SPI2, TRYME, Z, ZLIFE, ZRELEASE, #83: STARTER
- #60: MUSIC STUDIO SONGS. Do you have the Music Studio? Here are some 50 songs for your musical enjoyment
- #61: PRINTER DRIVERS. A variety of printer driver files for First Word, ST Writer, and Degas
- #62: HACK. A dungeons and dragons like game where you (the adventurer) descend into the depths of the dungeon in search of the Amulet of Yendor
- #63: UTILITY DISK NO. 3. Word processor desk accessory, Floppy disk indexer, newer faster file squeezer & unsqueezer, picture conversion and compression utilities, ramdisk copy program, more..
- #64: DOLL ANIMATION DEMO **. Fantastic spinning dolls demo. Requires one meg, color only.
- #65: TINY COLOR SLIDES NO. 6. ALTMAP, AT1200XL, BAT, BUGS, COYOTE, DRAGON3, DUNGEON, GIBSON, GIRL3, MARIE2, MARIEL, MIAMIVIC, MICKEY2, MUGS, SCULLY, SKATE, SUNSET, TOYOTVAN, VANHALEN, WARRIORS, WIZARD, XEVIOUS. Includes TINYSTUF and TINYVIEW.
- #66: GLOBE DEMO DISK **. Demo of spinning world globe plus a number of miscellaneous graphic demo programs. Requires one meg. Color only
- #67: BALL/BIRD DEMO DISK. Demo of ball bouncing on mirror with multiple light sources and shadows plus the flying bird demo.
- #68: CAD 3D PICTURES. A dozen or so picture files for use with Tom Hudson's CAD 3D Program
- #69: GRAPHIC ARTIST DEMO - PART 1 *. All features except writing to disk and printing. Demo requires one meg. Requires #70 below
- #70: GRAPHIC ARTIST DEMO - PART 2 *. Second part of Graphic Artist demo disk
- #71: FORTHMACS WORKING DISK Ver. 1.1. (c) 1986 by Bradley Forthware, Forthmacs is one of the very best Forth systems available today.
- #72: UTILITY DISK NO. 4. Format & copy 400K and 800K; LIBRARY.PRGM and DELIBRAR.PRGM; MAKE512 and MAKE1MEG; Function Key Label Program; MUSCNVRT; 5 desk ACC - CLI, FASTRAM, FORTUNE, PRINTS, DESKMAN; FILEPRINT; PROFF; DENSITY (print hi-res on color system)
- #73: UTILITY DISK NO. 5. ARCHIVER; Copy files to ramdisk; ramdisk acc; disk lib prgs; disk speed checker; ENCRYPT; title page printer; Ver 2 of desk acc word processor; convert Megamax resource H files to Personal Pascal I files; calculator program.
- #74: ST SAMPLER NO. 1. demo of Synsoft's General Ledger; SOLAPAK demo (screen saver, print spooler, and ramdisk autoloader); demo of TechMate Chess prg; debug prg for dBMAN command files (75 lines or less); and a bingo card tracking program.
- #75: TINY COLOR SLIDES NO. 7. Pictures from PRINT-TECHNIK demo disk: CAPITAL, CAR, CARDDAME, CARDKING, CT-MAG, EIFEL, FL-PFERD, GIRL6, GIRL8, GOHORSE, JACKSIG, MOONASTR, PFERDE, SCHADMA, TINA, TRAIN plus TINY programs.
- #76: PRINT-TECHNIK SOUND DIGITIZER DEMO **. Example of capabilities offered by the PRINT-TECHNIK sound digitizer. Requires 1040 with color monitor. (Double-sided disk).
- #77: CAD 3D ANIMATION DEMO. Fractal Mountain.
- #78: DIGI SOUND DEMO NO. 1 **. OXYGEN - Disco Version (By Hypnosis)
- #79: DIGI SOUND DEMO NO. 2 **. FOREIGN AFFAIR - (by Mike O'Driscoll)
- #80: MONOCHROME GAMES DISK NO. 2. MONOPOOL - a pool game with 6 balls; KRABAT - a chess game for beginning to intermediate players.
- #81: UTILITY DISK #6. ver 3 of WORD400; address book prg; change DESKTOP drive icons to diskettes; directory lister; quick I/O formatter; fast ramdisk; Font Editor; disk dir lister; hard disk backup; chop extra characters off xmodem downloads; search disk directory; sends setup commands to Epson printers; test RAM.
- #82: SAMPLE C PROGRAMS NO. 3. 3D, ARTWORK, ARXX, CC, CLOCK, FRACTAL, LI, PALETTE, PRINT, QIX, STARTUP, TTOOL2, Q10
- #83: SAMPLE MODULA-2 PROGRAMS NO. 1. shell for ARC.TTP alone with source code; files that access line A calls; patches to version 2 of Modula 2; command line interface; list contents of directory; format a disk; display amount of free RAM; modules demonstrating Huffman compression algorithm.
- #84: ST TERM 2.1 DEMO DISK. demo of ST-Term Ver 2.1. FLASH batch download DO File Generator; 2 additional terminal programs.
- #85: SOUND AND GRAPHICS DEMOS NO. 3. Sample screens from OO TOPUS; music player with four music files and more...
- #86: CP/M-80 EMULATOR TOS DISK. A complete CP/M-80 Version 2.2 compatible system environment. Disk includes TOS, PRG and DOC files and ARC file containing CPM programs on #87
- #87: CP/M-80 DISK NO. 1 Disk in CP/M-80 format: @.COM, CPM.DOC, CPMDATA.DAT, CPM.TOS.COM, CRCGEN.COM, DDTZ.COM, DEFAULT.KEY, EDTKEY.COM, EMU.TXT, EMUJO.S, INIDIR.COM, INIDSK.COM, MOVATA.ASM, NSWP207.COM, NULU.COM, NULU.DOC, READ.ASM, READ.COM, READ.ME, SCOPY.COM, SETKEY.COM, TOSCPM.COM, TOSDIR.COM, WS.KEY, XSUB.COM.
- #88: TERMINAL DISK NO. 3. UNITERM VT100 emulator program, Version 1.5. (Includes QFORMAT.PRGM, D.PRGM, NEWWORD.ACC, REVIDEO.PRGM, and DISKICON.PRGM from #83.)
- #89: ST WRITER Rev. 1.70 - SPANISH VERSION. (c) 1985 por Atari Corp., todos derechos reservados. Note: printer driver and doc folder from #15 are included (in English).
- #90: SHINNY BUBBLES. Latest ST color demo Introduced by Xanth at COMDEX '86.
- #91: BOFFIN DEMO DISK. Complete working demo of BOFFIN word processing program.
- #92: MODULA-2 LANGUAGE DISK NO. 2. Includes ST Speech Modules and other enhancements to Modula-2.
- #93: PASCAL LANGUAGE DISK NO. 2. Includes latest from OSS BBS plus source for CHECKERS, a spelling checker, more...
- #94: UTILITIES DISK NO. 7. Make clipboard type accessories, VCR tape log command files for H&D base, analyze dBMAN or H&D Base command files, print out strips of picture files to make them easier to keep track of,...
- #95: UTILITIES DISK NO. 8. Another formatting utility that handles increased capacity on SS and DS disks; files to help use Easy Draw to draw electrical schematics,...
- #96: TINY COLOR SLIDES NO. 8 Latest additions to ST Library of color art.

** Requires 1040 ST (or one meg 520 ST) and double-sided drive.

ANALOG DISKS

No. 41 - April, 1986	No. 45 - August, 1986
No. 42 - May, 1986	No. 46 - September, 1986
No. 43 - June, 1986	No. 47 - October, 1986
No. 44 - July, 1986	No. 48 - November, 1986

ST-MAGIC DISKS

These disks contain Macintosh programs for use with the Magic Sac on the ST. Disks are already in Magic format and can be used directly. Look for many more additions next month.

- #M01: FINDER 4.1 (You need this system disk to make the Magic Sac work.)
- #M02: TELECOM DISK (Telecom program with docs)
- #M03: UTILITY DISK (Various Macintosh utilities)
- #M04: MAC GAME DISK (Games for your ST/Macintosh)

PINFEED LABELS FOR YOUR ST DISKS like those used on CN Library disks: 500 (\$10); 1,000 (\$15); 2,000 (\$25); 3,000 (\$30). Price includes shipping.

ATARI USERS REGIONAL ASSOCIATION

President..... John Barnes..... 301-652-0667
 Vice President... Bill Schadt..... 301-622-1547
 Treasurer..... Richard Stoll.... 301-946-8435
 Corr. Secretary.. Marshall Abrams.. 301-588-1005
 Membership Chrm.. William Pimble... 301-341-9572
 Disk Libr. (XL/XE) Rick Kellogg.... 301-277-7536
 Disk Libr (ST)... Scott Klein.....
 Hardware Coord... Mo Sherman..... 301-593-1076
 Used Equip Sales. Lincoln Hallen... 301-460-5060

Meetings 1st Thursday (December 4). 7:00 pm (Library sales). 7:30-9:00 pm (Program) In the Temple Israel Social Hall. Temple Israel is located in Silver Spring, MD at 420 E. University Blvd. between Colesville Rd (Rt 29) and Piney Branch Rd (Md Rt 320).

Correspondence All correspondence, including membership renewals, changes of address, etc. should be sent to: AURA, P.O. Box 7761, Silver Spring, MD, 20904. AURA cannot guarantee Current Notes subscription fulfillment unless the member provides written confirmation of address changes, renewals, etc.

AURA REPORT FOR NOVEMBER '86

1. Meetings. We will meet on the 4th of December at Temple Israel. Note that this is the first Thursday. Our January meeting will be on the second Thursday (Jan 8) to avoid a conflict with New Year's Day.

2. Nominations. The following slate of officers will be presented at the December meeting:

President:..... John Barnes
 Vice President.... Barry Marcus
 Treasurer..... Mo Sherman
 Membership Secy.... Richard Stoll
 XL/XE Librarian.... Bill Frye

3. ATARIFEST. I would like to thank the following individuals who helped at the ATARIFEST: 8-bit productivity demos -- Bill Schadt, Cliff Ulmer, Joe Russek, and Linc Hallen; 16-bit demos -- Dorothy Hood (Novatari); Library Sales -- Rick Kellogg, Bill Frye, Monty Haley, Jeff Kellogg. We gained several new members and sold several hundred dollars worth of discs.

4. November Mtg. Rick Kellogg demonstrated SCREENS, a commercial program for using windowing techniques on an 8-bit machine. He also demonstrated a spelling tutorial package that he feels is comparable to the best educational software currently available. A PRINT SHOP enhancement package from a new AURA library release was also described. The current AURA library are up to disk #83. Bill Frye described WAR GAME CONSTRUCTION SET from SSI, a program that allows the user to build complete war games to his own taste.

Bill Schadt demonstrated some of the capabilities of ANSIGRAPH, a terminal emulator for the ST that provides graphics capabilities as well as comprehensive VT102 emulation. Bill also discussed some of the limitations and missing features. John Barnes talked briefly about a few hints and kinks on the ST desk top. Richard Stoll offered to loan out his (VHS Format) copy of the new videotape on "Using Your ST".

5. Reference Manual, Part II. Mo Sherman is coordinating the assembly of reviews and indexes for the publication of the AURA Reference Manual, Part II. You will recall that the previous edition, covering disks 0-40 in the AURA Library, reviewed and cross-indexed over 600 programs. This reference work is unique in the Atari community and the new edition, covering disks 40 to 80, promises to be even better. AURA's practice of providing on-disk documentation and stricter quality control

standards will make this task easier. Mo needs one person to review each disk.

6. XLent donation to Cannon Road School. XLent software donated MIDI Music Master to enhance the 520ST package that AURA has been supporting in the Cannon Road Elementary School. We encourage other software vendors to help in this effort to expand the educational uses of the Atari machines.

7. December Meeting. We hope to focus on new software suitable for gift giving at our December Meeting. Please bring any hot new goodies that you are especially proud of.

8. WAACE BBS. I have signed up for the WAACE BBS and I find that Ted Bell and Ed Seward have done a fine job of building an attractive, functional BBS. The board is by subscription, but the \$7.50/year price is nominal indeed. NOVATARI has done all of us a favor by taking the lead on this but they have offered exceedingly generous terms for others to come on board. I urge all AURA members with ST's to sign up. I think we will be able to greatly enhance the quality of the work we do and the level of communication within the Atari community by taking advantage of this resource.

9. 1987 Dues. We can expect increases in our costs for CURRENT NOTES and our practice of paying for meeting space creates an additional financial burden. I therefore propose that we increase our annual dues to \$20 for full members and \$5 for Associate members, effective for renewals occurring in December 1986.

CAPITAL PRO MICRO-USERS

President..... Bob Kelly..... 301-839-6397
 VP-Finances..... Frank Jones..... 301-593-1056
 VP-Communication. Mike Abramowitz... 301-983-2363
 VP-Prog.Affairs.. Joe Catterino... 301-757-1329
 Disk Library..... Joe Barbano..... 301-464-0757

FREDERICK ATARI COMPUTER ENTHUSIASTS

President..... Mike Kerwin..... 301-845-4477
 Vice President... Roger Eastep.... 301-972-7179
 Treasurer..... Buddy Smallwood.. 301-432-6863
 Librarian..... Chris Bigelow.... 301-662-4691
 Secretary..... John Maschmeyer.. 301-271-2470
 SYSOP..... Sam Yu..... 301-662-5586
 Bulletin Board..... 301-569-8305

Meetings: 4th Tuesday, 7 - 9:30 pm, Walkersville H. S., MD Route 194, 1 mile north of MD Route 26 (Liberty Road). Dues are \$20/year/family. Join at meeting or send check, payable to FACE, to Buddy Smallwood, P.O. Box 300, Keedysville, MD 21756.

Secretary's Report: Our November meeting was very successful. We had side-by-side demonstrations of LEADERBOARD on 8-bit and 16-bit systems. The ST is an impressive machine, without a doubt, but it was very clear that the 130XE is not dead by any means. The demonstration was ably presented by Chris Bigelow and Buddy Smallwood.

We also greatly enjoyed the ATARIFEST in Fairfax. We did very well with the sales of the club public domain disks, and those of our members who brought some items for the flea-market sold almost everything. We had a good turnout at the voice synthesis demonstration, and hoped we raised some renewed interest in those we spoke with.

I must announce a change for the December meeting. We will meet on the THIRD Tuesday, December 16th, instead of

the 4th Tuesday. December 23rd is a little too hectic for the meeting. At the meeting on the 16th, we will have a videotape of the GOONIES program by Chick Grasser and his friends, and Buddy Smallwood will demonstrate a database program on the ST.

We must also mention the disks full of public domain programs that our club has for sale. We have about 60 sides of 8-bit programs already distributed, and we recently completed trades with the Baltimore club and the Pittsburg club for their complete libraries, so there are another 150 or so sides that we haven't fully cataloged yet. We sell these disks for \$5 for a double-sided disk. One of our favorites is the "Everything" disk, designed for someone starting out in the 8-bit line. It includes a word-processor, a spell-checker, a database, and a spreadsheet on the front, and on the back we have a mail/address program, a checkbook program, a calendar program, a grocery store finder, and store-coupon management program. The disks are available from Chris Bigelow at 301-662-4691.

NATIONAL CAPITAL ATARI USERS' GROUP

President..... Peter Kilcullen.. 202-296-5700
Vice President... Mike Pollak..... 703-768-7669
Treasurer..... Allen H. Lerman.. 703-460-0289
XL/XE Librarian.. Mike Pollak..... 703-768-7669
ST Librarian..... Enrique Seale.... 202-295-0112

Meetings: 3rd Tuesday, 5:30 - 8:30 pm, room 543, National Science Foundation offices, 1800 G St., NW, Washington, DC. Closest subway stop is Farragut West on the Blue and Orange lines. Building is identified by sign for Madison National Bank on the corner. Front entrance is on west side of 18th between F and G. New members may join at meeting or send \$15 check, payable to NCAUG, to Allen Lerman, 14905 Waterway Drive, Rockville, MD 20853.

NORTHERN VIRGINIA ATARI USERS' GROUP

President..... Ed Seward..... (703) 960-6360
Vice President... Bob Zimmon..... (703) 476-5924
Treasurer..... Curt Sandler... (703) 734-9533
Secretary..... G. Weatherhead. (703) 938-4829
Program Chairman.. VACANT
Public Domain Ed.. Dave Meyer..... (703) 455-7145
Disk Librarian... M. Evan Brooks. (703) 354-4482
NOVATARI Prog Exch Jim Stevenson.. (703) 378-4093
Membership..... Earl Lilley.... (703) 281-9017
Acquisitions..... Palmer Pyle... (703) 437-3883
SYSOP..... Ted Bell..... (703) 455-5312
Bulletin Board... ARMUDIC..... (703) 569-8305
Bulletin Board... WAACE ST..... (703) 569-3227

Special Interest Groups

BEGINNERS SIG.... Gary Purinton.. (703) 476-8391
ST SIG..... see VAST
TELECOM SIG..... Dick Knisely... (703) 476-0529

**** Please do not call after 10 PM EDT ****

December 14th meeting in Small Auditorium

NOVATARI MAIN Meeting is held at the Washington Gas Light Building, 6801 Industrial Road, Springfield, VA (normally the 2nd Sunday of the month). Take 495 to East on Braddock (620) to South on Backlick (617). Left on Industrial Road (by a light with a Texaco station on the corner). Washington Gas Light is the second building on the right (big parking lot, go right in front door).

big auditorium

5:30 - 6:00 BEGINNERS SIG
6:00 - 7:00 speaker
7:00 - 7:30 business and Open Forum
7:30 - 8:30 8-bit SIG (if someone volunteers to run it)

small auditorium

5:30 - 6:00 TELECOM SIG
7:30 - 8:30 ST SIG

ST SIG also meets at Washington Gas Light from 5:30 - 9:30 on the fourth Sunday of the month.

LOCAL NOVATARI CHAPTERS

BURKE meets at the Oaks Community Center from 7:30 - 9:30 on the third Sunday of each month. Contact Ray Cwallina (250-3856).

GREENBRIAR meets at Computer Service Land, 14506-B Lee Road, Chantilly, VA from 7:30 - 9:30 on the fourth Wednesday of each month. Contact Jim Stevenson (378-4093).

MT VERNON / HYBLA VALLEY meets the first Thursday of each month at 7:30. Contact Ron Peters at 780-0963.

STERLING meets in the Sterling Community Center Annex from 7:30 - 10:00 on the first Thursday of the month.

VIENNA meets in room 10 at the Vienna Elementary School, 128 Center St. SW from 7:30 - 9:00 on the third Wednesday of the month. Contact Dave Heagy at 281-9226.

Membership Dues are \$15/year which includes a subscription to CURRENT NOTES. You may join at the main meeting, any chapter meeting or by sending \$15, payable to NOVATARI, to Earl Lilley, 821 Ninovan Road SE, Vienna, VA 22180.

President's Report

Let me start off by thanking Joe Waters for heading the team that organized The Second Annual Northern Virginia Atarifest. (Whew! Was that place packed!!!) Thanks also go to Don Elmore, Palmer Pyle and Georgia Weatherhead who worked on this with Joe from very early on. Bill Parker did a nice job in finding people to run the 8-bit rooms as did Joe Kuffner for the ST rooms. I won't cover the room captains but thank you none the less -- I only wish I had been able to get out to some of the other rooms.

I've heard a couple attendance estimates at 2500, a bunch at 4000 and a lot of estimates higher than 4000. My estimate is an attendance figure of about 4000 people. The only suggestion I would like to make for next year's organizing crew is to move the date up two weeks to get it away from COMDEX week.

As my time as president is just about up I should do a summary of sorts. NOVATARI hasn't grown as much this year as last year -- we started the year with about 500 members and will finish the year with about 600 members. We have done away with free access to ARMUDIC this year. As a result of the infamous lightning strike ARMUDIC had to be rebuilt and is running on an ST with a 20 meg hard disk. As part of the restructuring ARMUDIC has been opened up to all WAACE members with NOVATARI and the NCAUG members paying \$5/year and other club members paying \$7.50/year. Even though the DC group is no longer financially supporting the BBS they are being charged the same annual dues as a courtesy for helping with ARMUDIC from its inception. NOVATARI of course is underwriting the WAACE ST BBS with only NOVATARI members paying the lower dues on this system. With NOVATARI now sponsoring two WAACE-wide BBSs, it should be much easier for members of the different clubs to coordinate events and to stay

In touch with user group members of the whole DC area. This is a good way to provide a benefit to both NOVATARI members as well as to the WAACE membership as a whole. Thanks go to Dave Meyer for arranging the several speakers that flew in to DC to speak at the main meeting.

I should mention a few changes that will be taking place for next year. NOVATARI dues will be increased for the first time in ages. The cost of CURRENT NOTES is going up to support the greater number of pages. Thus, the dues for next year will be \$20. Also, there will be a change in the NOVATARI setup and it's officers. The President of the ST SIG (VAST) will also be the NOVATARI ST VP. To make sure that 8-bit owners' interests are looked after an 8-bit SIG will be formed of all those not belonging to the ST SIG (NOTE: one can easily belong to BOTH SIGS). The President of the 8-bit SIG will be the NOVATARI 8-bit VP. The President of NOVATARI should not have any negative bias towards one system or the other as that position's responsibility will stay the same. Most of this has been agreed to in various pieces but the final form of this proposal will be shaped at the board meeting preceding the December 14th main meeting.

This brings me to the election. The slate of officers for the January election is supposed to be presented at the December 14th meeting. So far NOBODY has shown interest in filling the NUMEROUS VACANCIES. I will not be running again. This makes the list of confirmed vacancies: President, 8-bit VP, Secretary, Acquisitions, Program Chairman, 8-bit Disk Librarian and 8-bit Public Domain Coordinator. If people wish things to continue running, then they will have to step forward. As I don't have my new number yet the person to call is Georgia Weatherhead at 938-4829.

Many thanks for the faith you have shown by making me president during the past year.

Virginia ST User's Group

President..... Joe Kuffner.... (703) 759-2507
 Demo Volunteers.. Evan Wallace... (703) 620-9144
 Disk Librarian... Allen Clarke... (703) 250-4469
 Equipment Coord.. Ian Charters... (703) 845-7576
 Public Relations. Gary Scott..... (703) 590-1906
 MIDI Keyboard.... Mike Lehr..... (703) 931-9947
 Programmer's SIG. Ken Whitesell.. (301) 636-4756
 WAACE ST BBS..... (703) 569-3227

The VaST meets on the second and fourth Sunday of each month in the Washington Gas & Light Building (See NOVATARI report for directions).

Second Sunday: 7:30 until 9:30 in small auditorium
 Fourth Sunday: Programmer's SIG - 5:30 until 6:30
 VaST Meeting - 6:30 until 9:30

SOUTHERN MARYLAND ATARI USERS' GROUP

President..... Sam Schriner..... 301-843-7916
 Secretary..... Dorothy Leonardi. 301-839-1363
 Treasurer..... Bob Barnett..... 301-934-2617
 Disk Librarian... Jim Sanner..... 301-884-5840

Meetings: 2nd Thursday, 7:30 pm, John Hanson Middle School In Waldorf, MD. Take MD Route #5, proceed about 1/2 mile East of the intersection of Route 301 and take the first left past the Kinney show store to the school. New members may join at the meeting or send \$15 check, payable to SMAUG, to Bob Barnett, P.O. Box 612, Waldorf, MD 20601.

WOODBIDGE ATARI COMPUTER USERS' GROUP

President..... Bill Parker..... 703-680-3041
 First VP..... Cecil Alton..... 703-670-4842
 VP-Education.... Bob Gaffney..... 703-590-3433
 VP-Liaison..... Tim Mitchell..... 703-221-7722
 Secretary..... Bill Alger..... 703-455-9565
 Treasurer..... Curt Pieritz..... 703-494-3704
 Librarian..... Arnie Turk..... 703-670-2547
 Past President... Jack Holtzhauser.. 703-670-6475

Meetings: 3rd Tuesday, 7 - 10 pm, Community Room, Potomac Branch, Prince William County Library, Opitz Blvd., Woodbridge, VA. Entering Woodbridge from either North or South on Route #1, proceed to the intersection of Route #1 and Opitz Blvd (adjacent to Woodbridge Lincoln-Mercury). Turn west on Opitz and take first left turn into the library's parking lot. The Community Room is located to your left immediately upon entering the main building. Membership fee is \$10/year plus \$1 monthly dues. Join at meeting or send check, payable to WACUG, to Bill Alger, 7792 Newington Woods Drive, Springfield, VA 22153.

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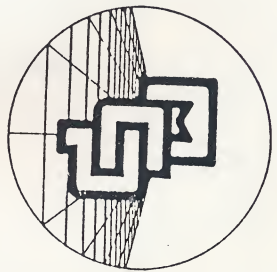
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